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ARCHITECTURAL DETAILS

FOR EVERY TYPE OF BUILDING

FOR
CONTRACTORS
BUILDERS
LUMBER DEALERS
MILL MEN
DRAFTSMEN
ARCHITECTS

Wm. A. RADFORD
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ARCHITECTURAL DETAILS

FOR EVERY TYPE OF BUILDING

A Practical Drafting Room Guide for Contractors, Builders, Lumber Dealers, Millmen, Draftsmen, and Architects.

By

William A. Radford, President of the Radford Architectural Co.; Editor-in-Chief "American Builder" and "Farm Mechanics"; Publisher "Radford's Cyclopedia of Construction" in twelve volumes; "Radford's Estimating & Contracting"; "Details of Building Construction"; "Guaranteed Build-Plans", Etc., Etc. . . .

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FOREWORD

THIS present volume is intended to supplement our well-known collection of building details, entitled "Radford's Portfolio of Details of Building Construction," which was first issued in 1912 and has since run thru many editions.

All of the plates in the present series are new—not duplicating at all the earlier work. They present many of the modern ideas, that have come to the front during the past ten years.

This collection of details is offered with the expectation and hope that it will be of great practical utility to carpenters, builders, mill men, lumber dealers, draftsmen and architects. The aim has been to make it a complete manual of modern building practice, all points being made clear and understandable by means of the working drawing—the language of the blue print and the universal language of the building trades.

This book is a collection of plates, accurately drawn by skilled draftsmen, showing clearly the details of modern building construction and finish. Brief explanatory text accompanies each plate, calling attention to some of the points illustrated. The drawings themselves, however, are of first importance and should be carefully studied. More helpful ideas and exact information are contained in a single one of these plates of details than could be crowded into a whole chapter of ordinary descriptive text.

Details are given showing the framing and construction of residences of every type—frame houses, brick houses, brick veneer houses, stucco houses, etc. Also every popular and attractive style of interior trim is fully detailed. Special ideas are presented for the appropriate interior finish for every room or part of the house. These ideas are worked out complete, the drawings showing both the arrangement of the room and all the interior trim, including built-in features, fully detailed.

This is the day of "built-in" space and labor-saving features in the home. Carpenters and builders are called on continually to plan and build buffets and sideboards for the dining room; kitchen cabinets, cases, and cupboards for the kitchen and pantry; wardrobes and linen closets for the chambers; and window seats, fireplaces with decorative mantels, and built-in bookcases for the living room and library. These drawings have been prepared to show exactly how this kind of work is done. Many practical ideas are embodied in them; and new and attractive designs are presented from which the carpenter, the architect, or the builder can draw for all or any of these.

Many valuable details are also included in this collection of special interest to the country carpenter and builder. These include barn framing details of all kinds, ice-house and cold storage construction, silo building, etc.

The practical utility of detail plates of this kind will probably be best appreciated by those who draw plans or who are called upon to make their own designs for building work. The drawings in this collection have been prepared to meet especially the needs of such workmen.

Especial attention is called to the Index. This has been made very complete, all the various features detailed on any of the plates being listed and cross-indexed so that they may be very quickly found, without the necessity of searching thru the entire work. Since all the plates are completely indexed for ready reference their full value is available for use by the busy man.

Logical Methods in Architectural Drafting

A KNOWLEDGE of architectural drafting is vitally essential to the carpenter, builder or contractor, who would develop both himself and his business to the greatest possible extent.

The builder who is able to work out a neat and accurate set of drawings or "plans" fully dimensioned and detailed, leaving nothing to chance, has a very decided advantage over his brother, who, without fully conceived ideas and plans, starts building, and trusts to luck and good fortune that everything will work out all right. Even rough sketch drawing with approximate dimensions are better than none, but only full and detailed sets of plans are advisable.

In evolving a set of working plans the first logical step is the sketch. The purpose of the sketch is to fix the various ideas of either the builder or his client or of both and to give some definite basis for a start.

The medium for the sketch may be either pencil, pen and ink, water color or wash, the first named being the most common and the simplest to use.

The value of the sketch to the "builder architect" can hardly be over-estimated, because if well and attractively done, it may bring valuable contracts, which might not be obtained if this means of expression were not used.

Preliminary or "thumb nail" sketches, as they are sometimes called, should not be over 3 or 4 inches in size. They are not drawn to any definite scale and their chief purpose is to show arrangement. They should, however, be kept in proportion as much as possible.

The type of plan for such a sketch must of course be determined upon before the first drawing is made and the deciding factors are, first, the character of the site, and, second, the style of the exterior.

If we analyze any number of house plans we will find that they may be broadly classified into two general types, namely, the central entrance or central hall type, and the side entrance or side hall type. In the first named, as illustrated (Fig. 1), we have a symmetrical arrangement of rooms opening from a central hallway. This is the typical "Colonial" plan and calls, as a rule, for that style of elevation. In Fig. 2 we have the second type shown; note that in this type we have a plan that is unsymmetrical and is adapted especially to the narrow city lot.

We will take as an illustration of the logical steps to follow in making a sketch the first type, or central hall plan. First determine the approximate proportion of the floor plan, says two as to three. 1. Sketch center line. 2. Draw front and rear outside wall lines representing the width of the wall by a single line. 3. Side wall lines. 4. Locate main partition lines. 5. Minor partition lines. 6. Rough in approximate position of openings, doors and windows.

Study carefully at this time the relation of rooms and the circulation.

In like manner sketch second floor plan. It will be found that the basement, as a rule, logically takes its arrangement from the first floor plan, so we need not consider it in the first sketch.

After line sketches of the plans are made, the front elevation and then principal side elevation should be drawn.

The style of the exterior having been decided, determine first the proportion of the front wall—that is, the height from the ground to the under side of the cornice compared with the width. This height in the ordinary two-story house varies from 20 to 24 feet.

1. Block in this rectangle with center line.
2. Block in height lines for windows and doors.
3. Draw vertical outside lines for windows and doors, determining their positions approximately from plans.
4. Draw roof, taking height as ¼, ⅓ or ½ depth of plan, depending on judgment of designer.
5. Draw in porch or porches according to style of exterior.
6. Darken or shade window openings and show shadow under cornice.
7. Sketch in background.

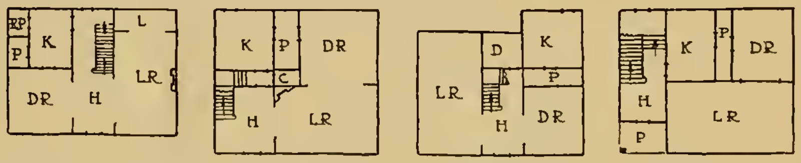
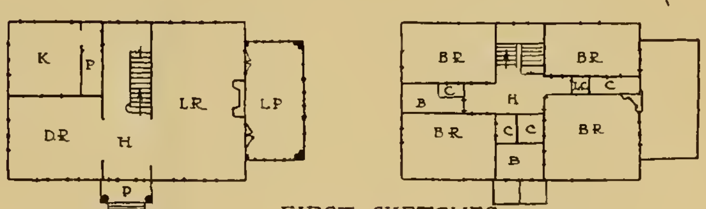


FIG 1 FIG 2 FIG 1-A FIG 1-B

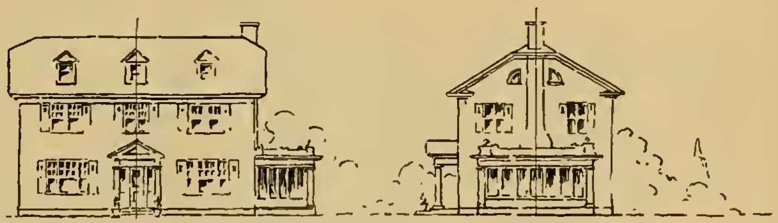
TYPE PLANS



FIRST FLOOR

FIRST SKETCHES

SECOND FLOOR



- ELEVATIONS -

PERSPECTIVE

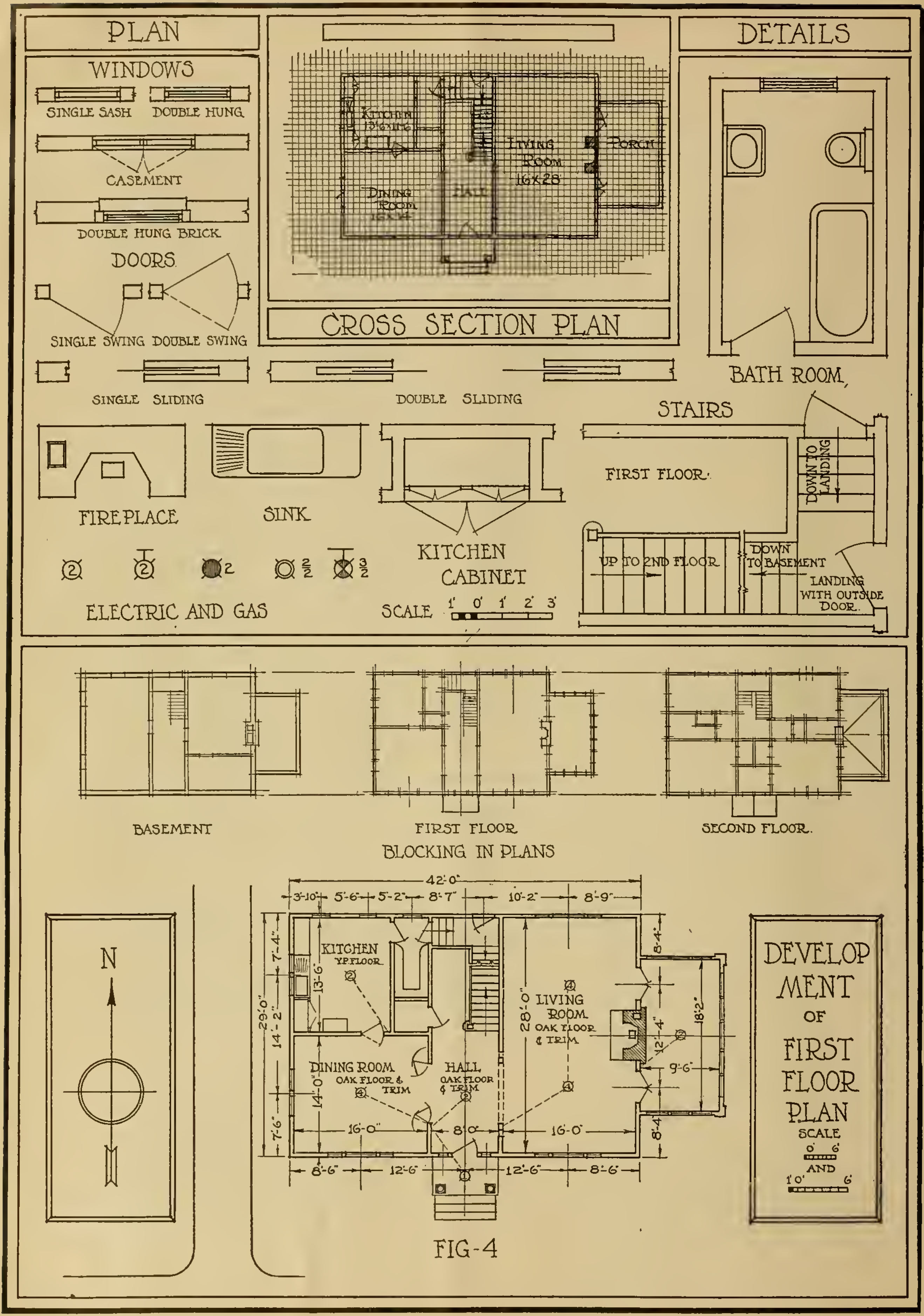


FIG-4

Illustrating Logical Method of Developing the Floor Plans of a Residence.

TYPICAL ELEVATION DETAILS

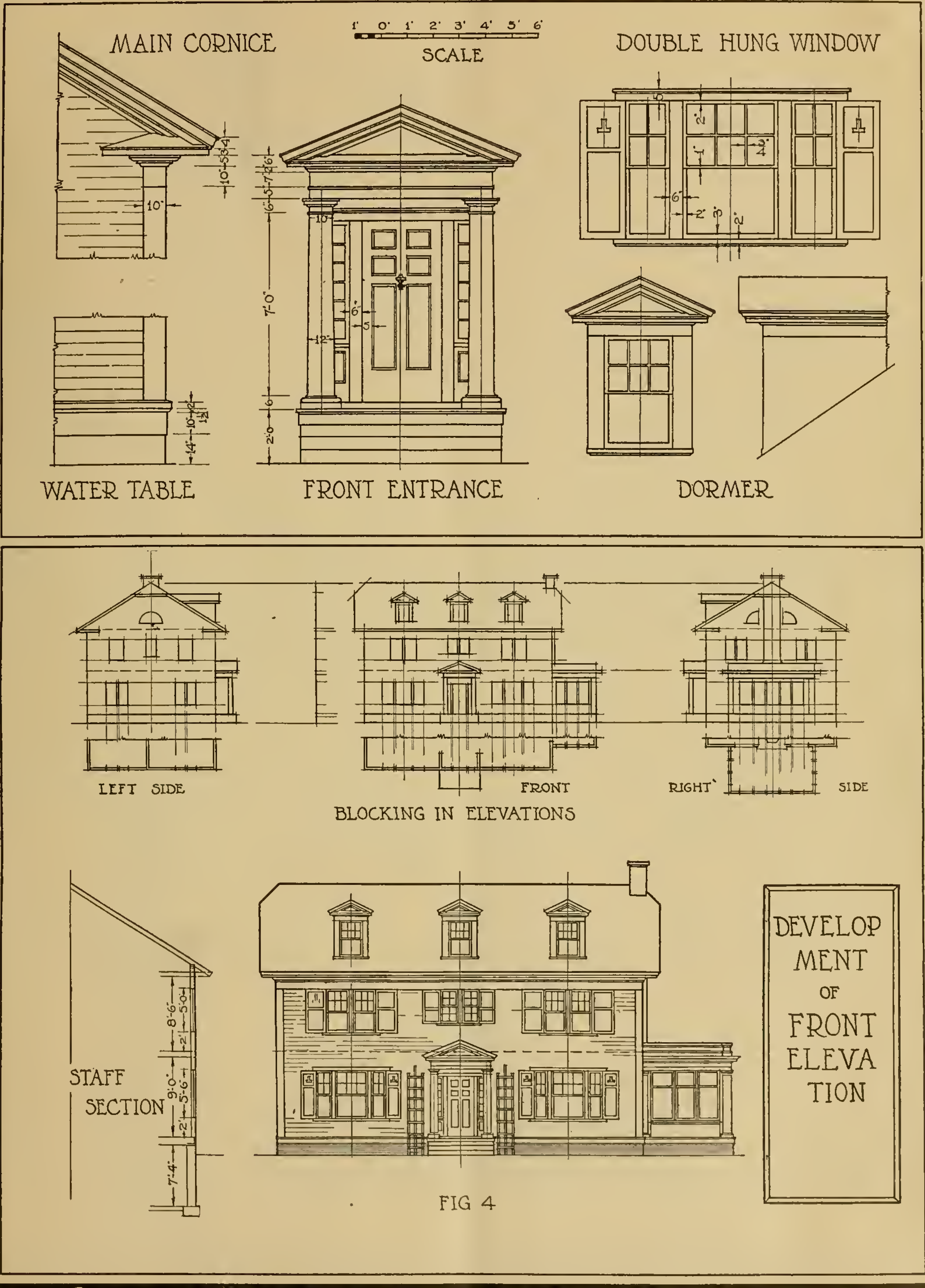
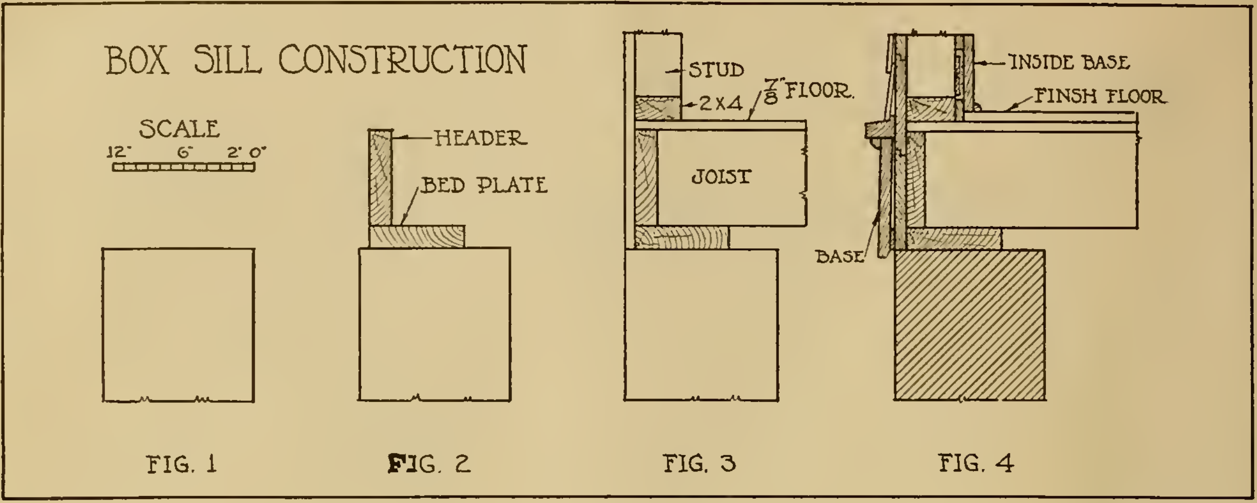
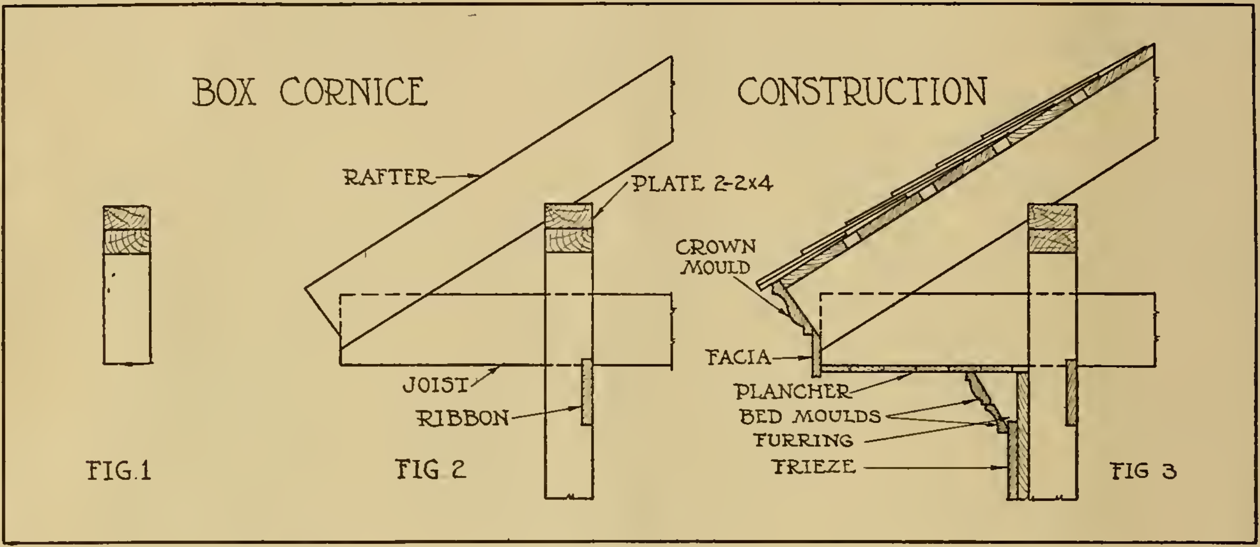


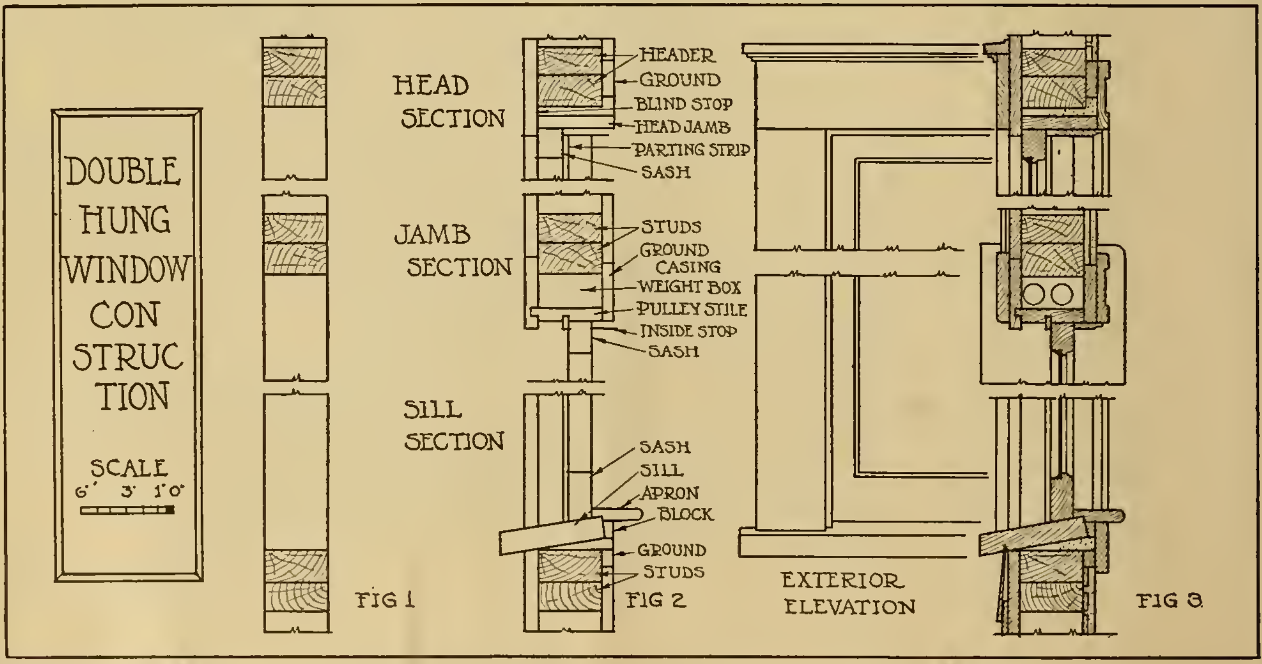
FIG 4

Illustrating Logical Method of Developing the Elevations of a Residence.

DEVELOPMENT OF DETAILS







Illustrating Logical Method of Handling Construction Details of a Residence.

DEVELOPMENT OF THE PERSPECTIVE

FIG 1

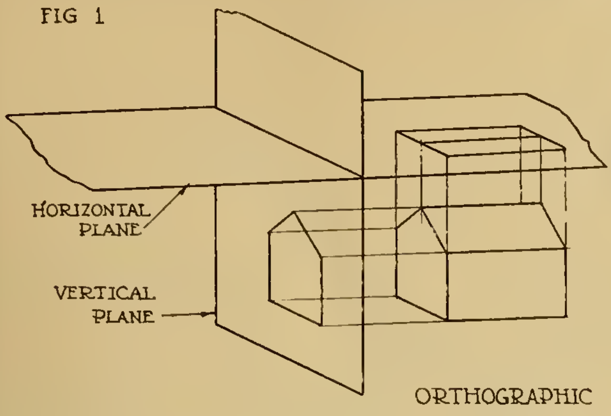


FIG 2

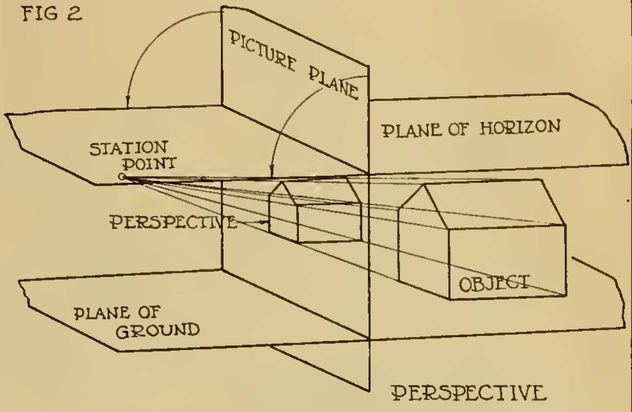


FIG. 3

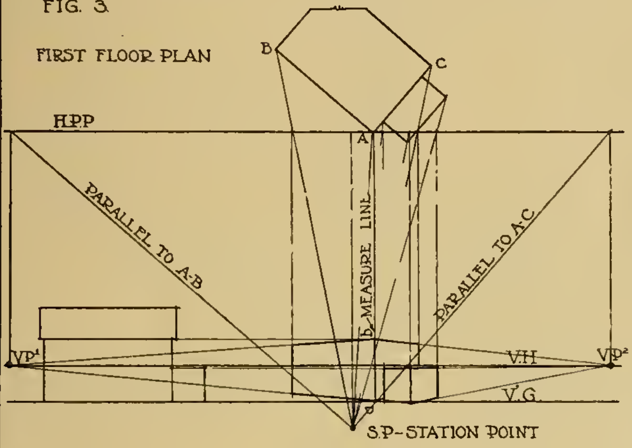


FIG 4

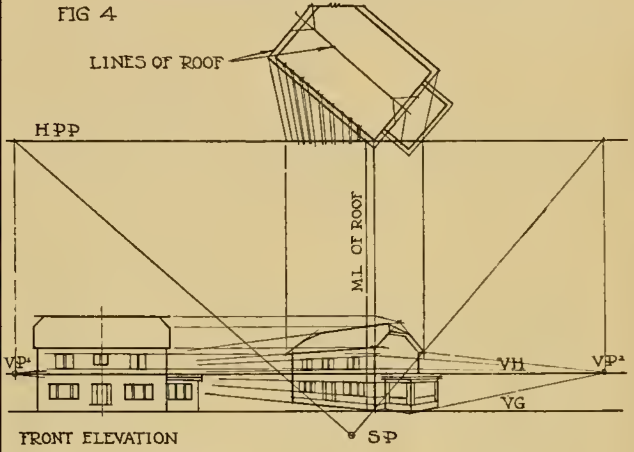
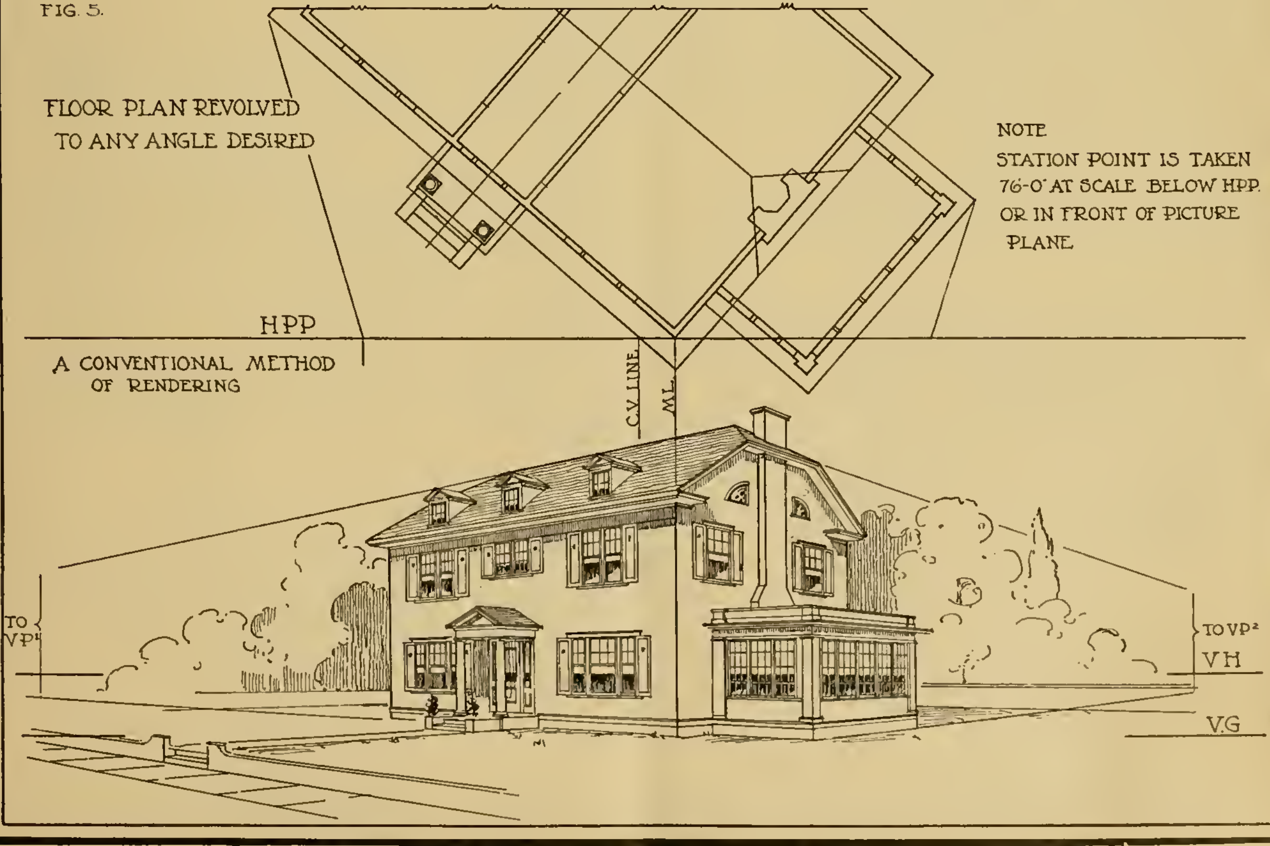


FIG. 5.


FLOOR PLAN REVOLVED TO ANY ANGLE DESIRED
HPP
A CONVENTIONAL METHOD OF RENDERING
C.V. LINE
ML
TO VP¹
TO VP²
VH
V.G

NOTE
STATION POINT IS TAKEN 76-0" AT SCALE BELOW HPP. OR IN FRONT OF PICTURE PLANE

The Fundamentals of Architectural Perspective Drawing.

DETAILS OF CONSTRUCTION FOR RETARDING FIRE

FIG. 1 - ELEVATION SHOWING FIRE STOPPING IN FRAME WALL AT CONNECTION OF UPPER FLOOR JOISTS WITH RIBBON.

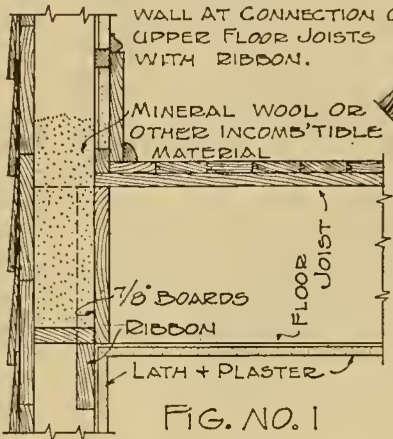


FIG. NO. 1

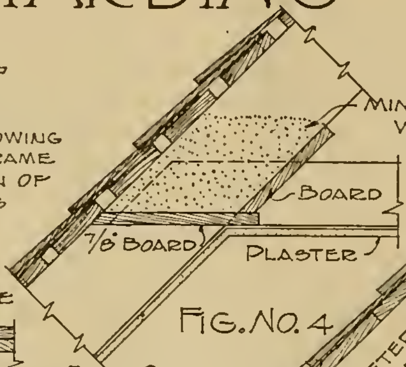


FIG. NO. 4

FIG. 4 - CONNECTION OF ATTIC CEILING JOISTS WITH ROOF RAFTERS, FIRE STOPPING SUPPORTED ON BOARDS FITTED BETWEEN RAFTERS + CEILING JOISTS.

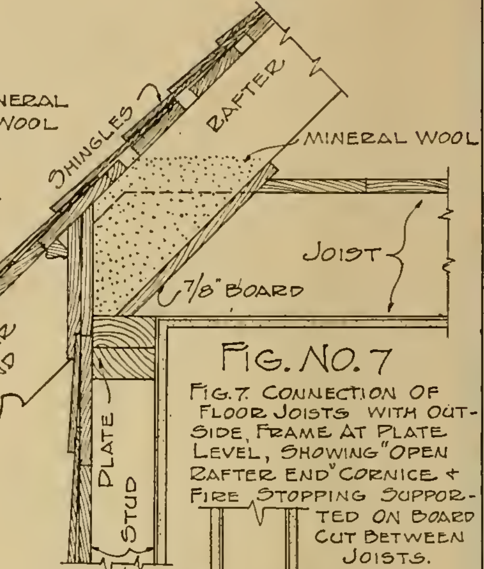


FIG. NO. 7

FIG. 7 CONNECTION OF FLOOR JOISTS WITH OUTSIDE, FRAME AT PLATE LEVEL, SHOWING "OPEN RAFTER END" CORNICE + FIRE STOPPING SUPPORTED ON BOARD CUT BETWEEN JOISTS.

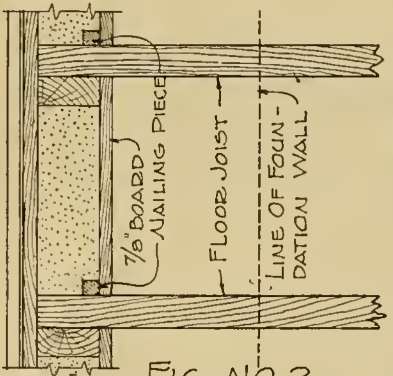


FIG. NO. 2

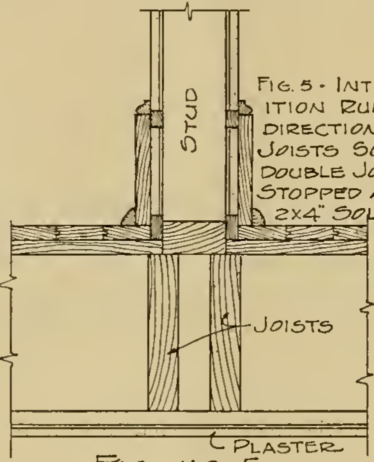


FIG. 5 - INTERIOR PARTITION RUNNING SAME DIRECTION AS FLOOR JOISTS SUPPORTED ON DOUBLE JOISTS, FIRE-STOPPED AT BOTTOM BY 2X4" SOLE.

FIG. NO. 5

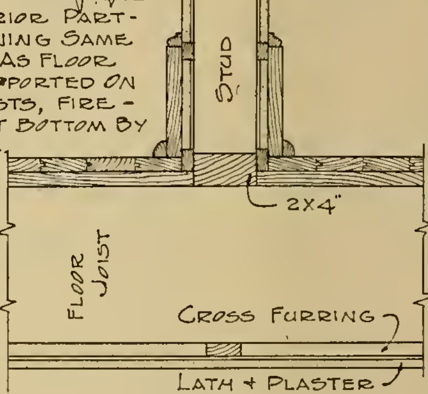


FIG. NO. 8

FIG. 8. PARTITION RUNNING CROSSWISE TO FLOOR JOISTS, FOOTING ON SOLE USED AS A FIRE-STOP. THIS WOULD BE IMPROVED BY ADDITION OF SOME INCOMBUSTIBLE MATERIAL ON TOP OF SOLE.

IF BRICK IS USED - THE BOARDS + NAILING PIECES ARE NOT REQUIRED.

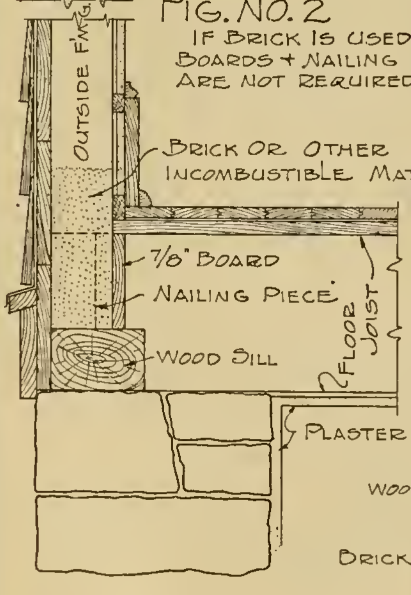


FIG. NO. 3

FIG. 2+3 - ELEVATION + PLAN SHOWING FIRE-STOPPING OF WALL OF FRAME BLD'G AT LINE OF SILL + BETWEEN STUDS + FLOOR JOISTS.

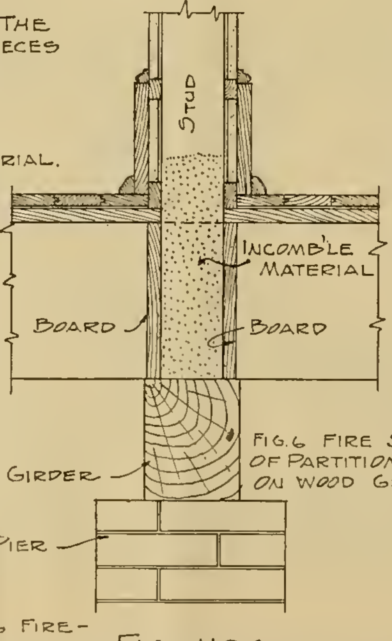


FIG. 6 FIRE STOPPING OF PARTITION RESTING ON WOOD GIRDER.

FIG. NO. 6

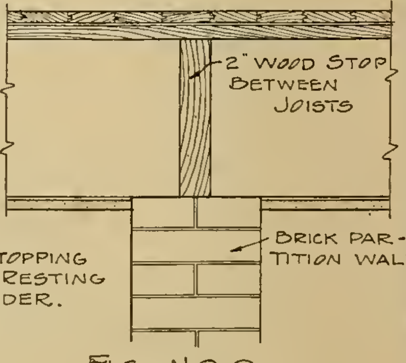


FIG. NO. 9

FIG 6 FIRE-STOPPING WITH TIMBER CUT BETWEEN FLOOR JOISTS ON TOP OF BRICK PARTITION

DETAILS-OF- FIRE-RETARDING- CONSTRUCTION-

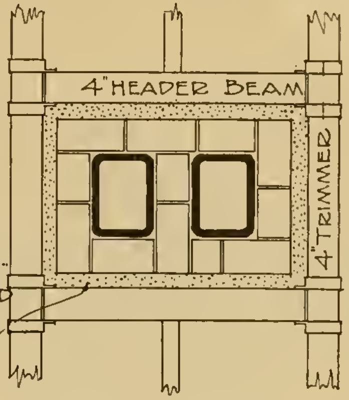
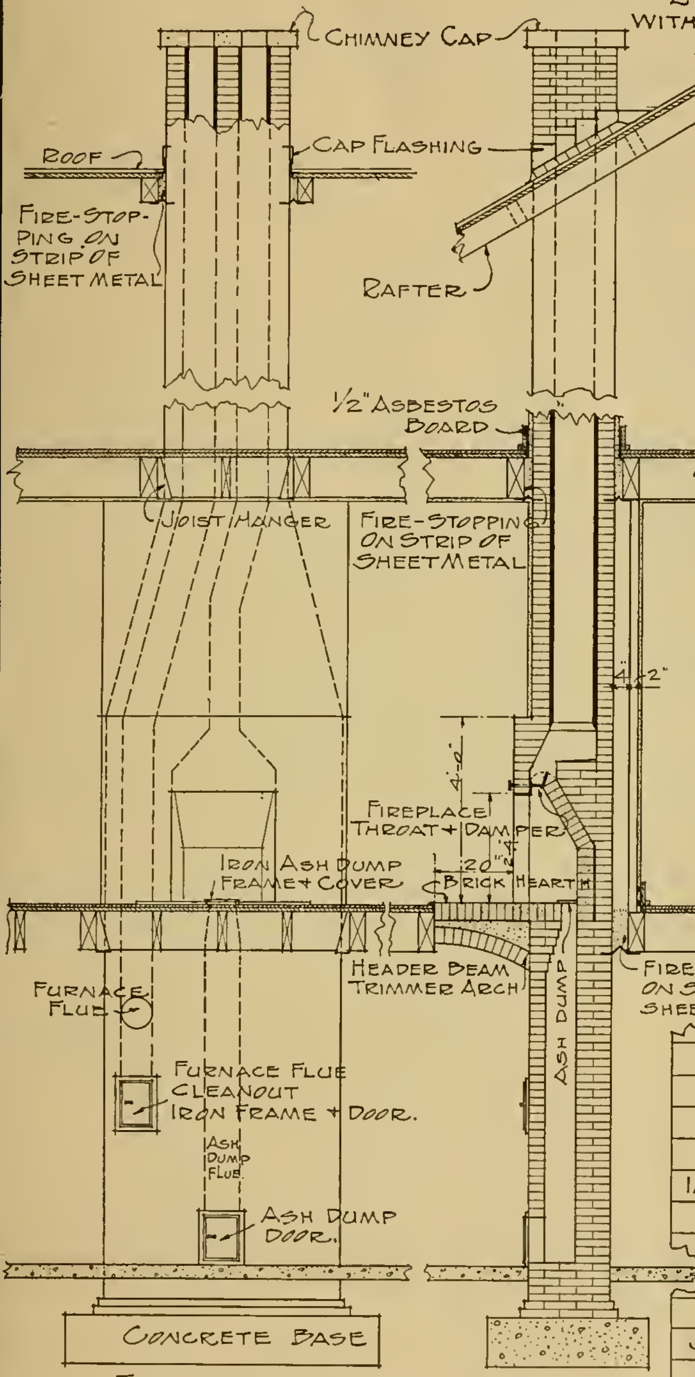


Fig. No. 1

Fig.#1 Showing Ordinary Floor Framing Around A Chimney All Timbers 2" Clear Of Brickwork And Space Filled With Fire-proofing Material


Chimney Cap
Roof
Cap Flashing
Fire-Stopping On Strip Of Sheet Metal
Rafter
½" Asbestos Board
Joist Hanger
Fire-Stopping On Strip Of Sheet Metal
4"
2"
4'-0"
Fireplace Throat + Damper
Iron Ash Dump Frame + Cover
20"
Brick Hearth
Header Beam Trimmer Arch
Ash Dump
Fire-stopping On Strip Of Sheet Metal
Furnace Flue
Furnace Flue Cleanout Iron Frame + Door.
Ash Dump Flue.
Ash Dump Door.
Concrete Base

Elevation Section

Standard Chimney Construction

Elevation And Section Of An Interior Independent Chimney Showing Recommended Construction.

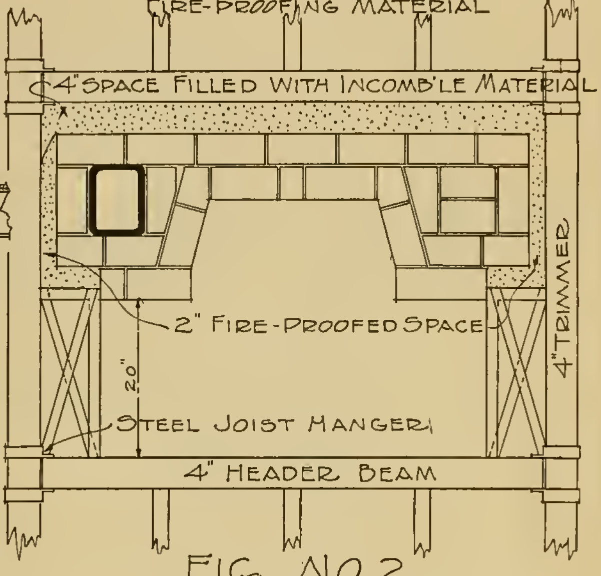


Fig. No. 2

Floor Framing Around A Single Fireplace. Note Filling Between Framing And Brickwork, Witch Serves Both As Insulator And Fire-Stop

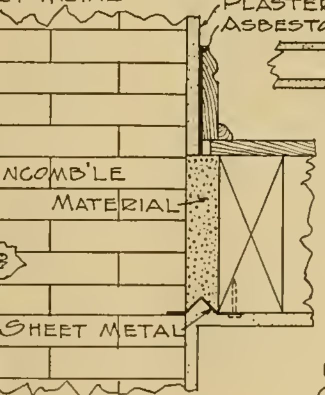


Fig. No. 3

Fig#3. Showing Support Or Fire-Stopping Around Chimney And Protecting Woodwork.

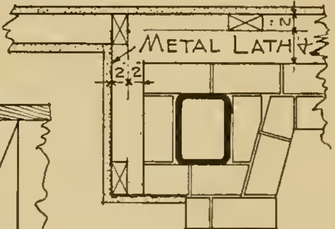


Fig. No. 4

Fig#4. Stud Partition Across Back Of Fireplace And Around The Ends Of Chimney Breast, Showing Proper Method Of Arrainging Studs.

How to Lay Up Chimneys and Arrange the Floor and Roof Framing in Relation to Them to Make a Fire-Safe Structure.

DETAILS OF FIRE-RETARDING CONSTRUCTION

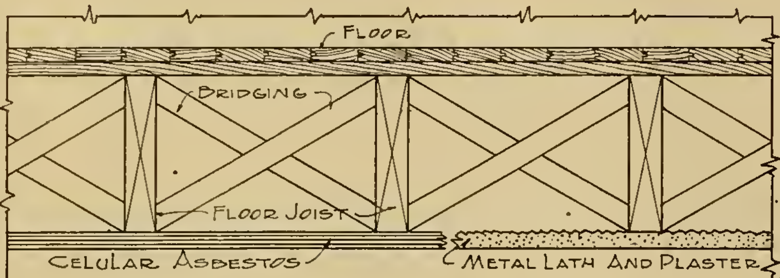


FIG. NO. 1 FIG. NO. 2

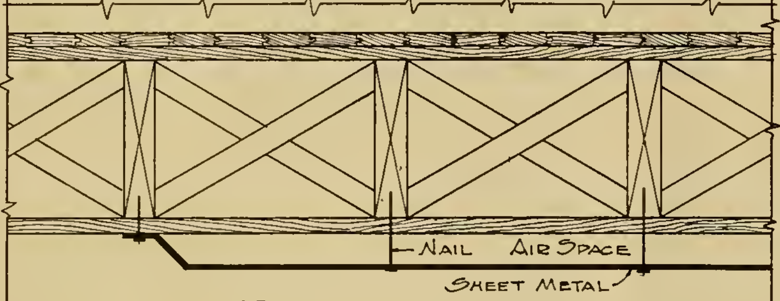


FIG. NO. 3

Fig No. 1-2+3 Showing Methods Of Protecting Ceiling Over Furnace Or Boiler

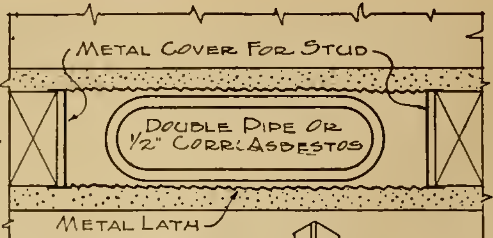


FIG. NO. 6

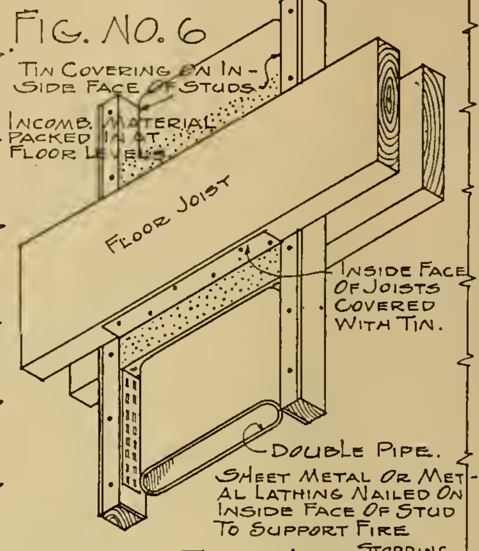

Tin Covering On Inside Face Of Studs
Incomb. Material Packed In At Floor Levels
Floor Joist
Inside Face Of Joists Covered With Tin.
Double Pipe.
Sheet Metal Or Metal Lathing Nailed On Inside Face Of Stud To Support Fire Stopping.

FIG. NO. 7

Fig No. 6. - Protection Of Hot Air Pipe In Wooden Stud Partition.

Fig. No. 7. Isometric Sketch Showing Method Of Fire Stopping Between Floor Joists Around Hot Air Pipe, Carried Up In A Partition

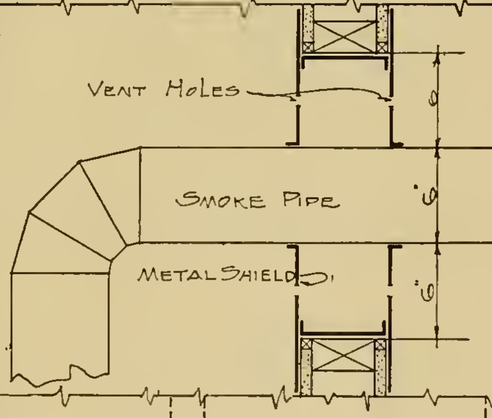


FIG. NO. 4.

Fig. No. 4. - Showing Section View Of Protection Around A Smoke Pipe Passing Thru A Wooden Partition.

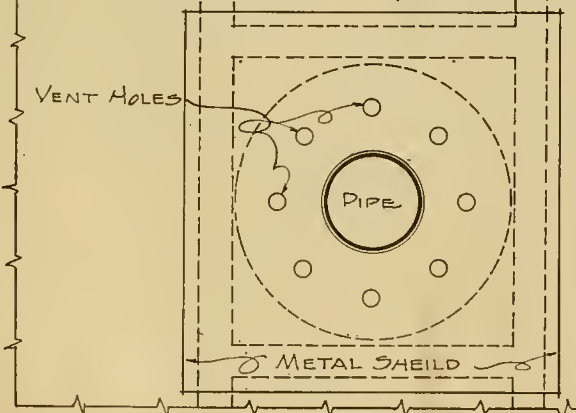


FIG. NO. 5

Fig No. 5 Showing Elevation Of Fig. No. 4.

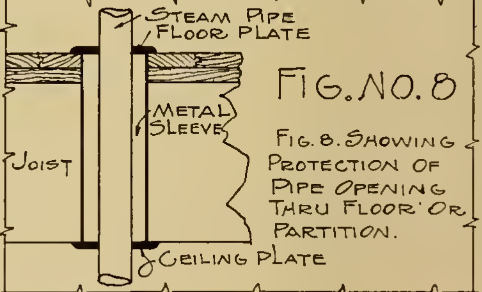


FIG. NO. 8

Fig. 8. Showing Protection Of Pipe Opening Thru Floor Or Partition.

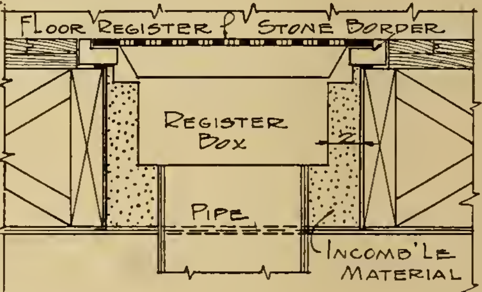
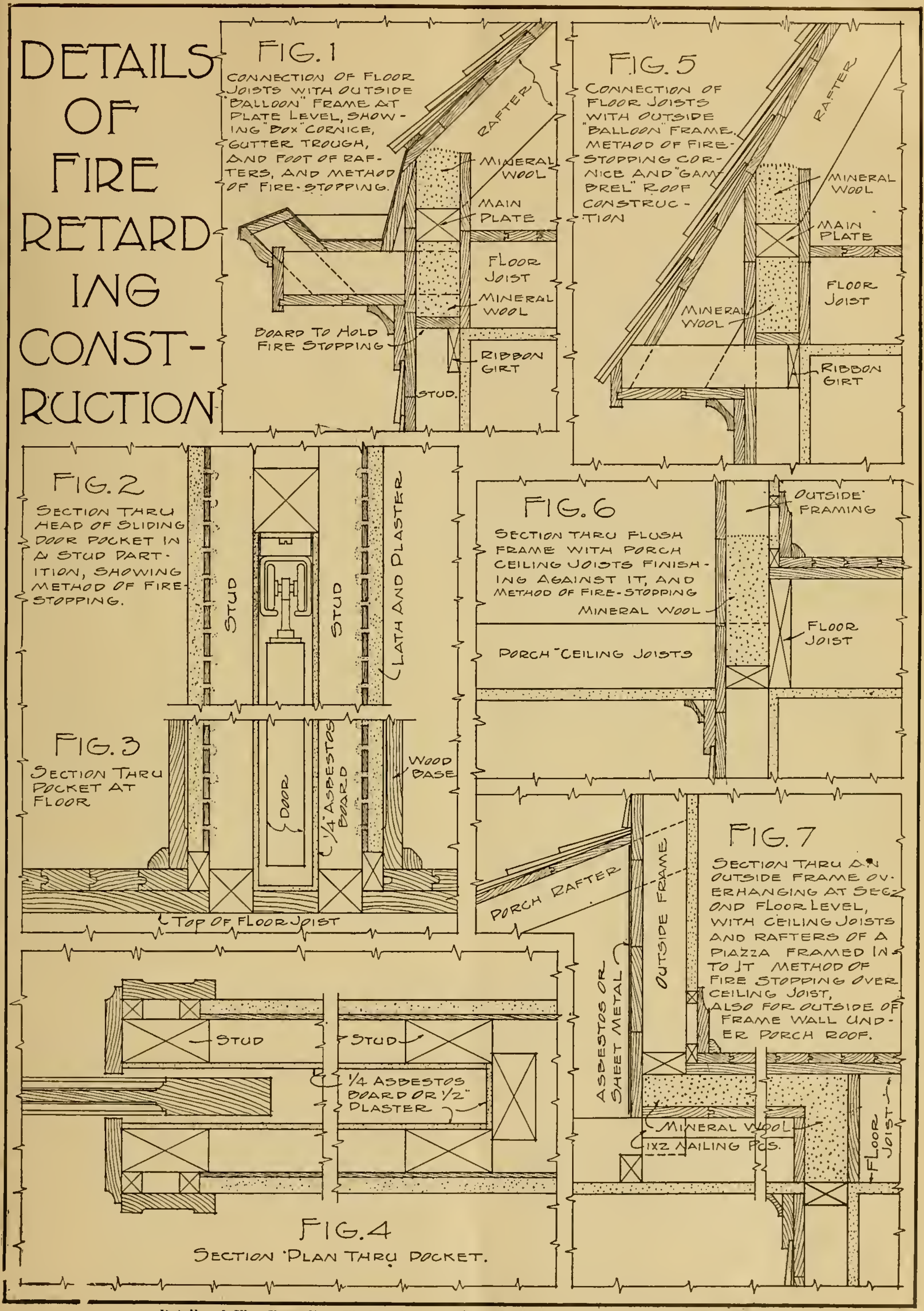


FIG. NO. 9

Fig. No 9 Showing A Complete Method Of Fire Stopping, Floor Register. Well Suited For Existing Buildings.

Details of Fire Guards to Build in Around Heating Plant Pipes for Protection.


DETAILS OF FIRE RETARDING CONSTRUCTION
FIG. 1
CONNECTION OF FLOOR JOISTS WITH OUTSIDE "BALLOON" FRAME AT PLATE LEVEL, SHOWING "BOX" CORNICE, GUTTER TROUGH, AND FOOT OF RAFTERS, AND METHOD OF FIRE-STOPPING.
RAFTER
MINERAL WOOL
MAIN PLATE
FLOOR JOIST
MINERAL WOOL
BOARD TO HOLD FIRE STOPPING
RIBBON GIRT
STUD.
FIG. 5
CONNECTION OF FLOOR JOISTS WITH OUTSIDE "BALLOON" FRAME. METHOD OF FIRE-STOPPING CORNICE AND "GAMBREL" ROOF CONSTRUCTION
RAFTER
MINERAL WOOL
MAIN PLATE
FLOOR JOIST
MINERAL WOOL
RIBBON GIRT
FIG. 2
SECTION THRU HEAD OF SLIDING DOOR POCKET IN A STUD PARTITION, SHOWING METHOD OF FIRE-STOPPING.
STUD
STUD
LATH AND PLASTER
FIG. 3
SECTION THRU POCKET AT FLOOR
DOOR
1/4" ASBESTOS BOARD
WOOD BASE
TOP OF FLOOR JOIST
FIG. 6
SECTION THRU FLUSH FRAME WITH PORCH CEILING JOISTS FINISHING AGAINST IT, AND METHOD OF FIRE-STOPPING
MINERAL WOOL
PORCH CEILING JOISTS
OUTSIDE FRAMING
FLOOR JOIST
FIG. 7
SECTION THRU AN OUTSIDE FRAME OVERHANGING AT SECOND FLOOR LEVEL, WITH CEILING JOISTS AND RAFTERS OF A PIAZZA FRAMED IN TO IT. METHOD OF FIRE STOPPING OVER CEILING JOIST, ALSO FOR OUTSIDE OF FRAME WALL UNDER PORCH ROOF.
PORCH RAFTER
OUTSIDE FRAME
ASBESTOS OR SHEET METAL
MINERAL WOOL
1X2 NAILING PCS.
FLOOR JOIST
STUD
STUD
1/4 ASBESTOS BOARD OR 1/2" PLASTER
FIG. 4
SECTION PLAN THRU POCKET.

Details of Fire Retarding Timber Construction, Showing How to Do It the Better Way.

DETAILS OF FIRE RETARDING CONSTRUCTION

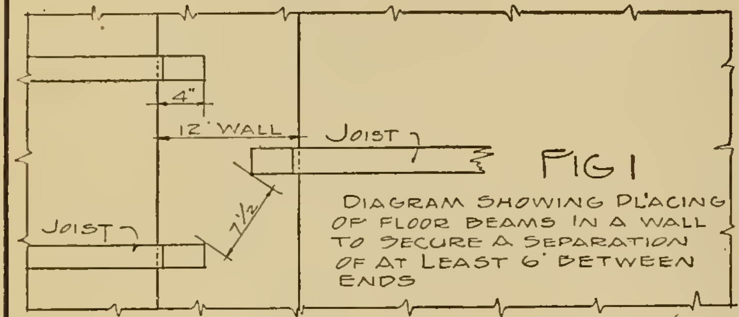


FIG I

DIAGRAM SHOWING PLACING OF FLOOR BEAMS IN A WALL TO SECURE A SEPARATION OF AT LEAST 6" BETWEEN ENDS

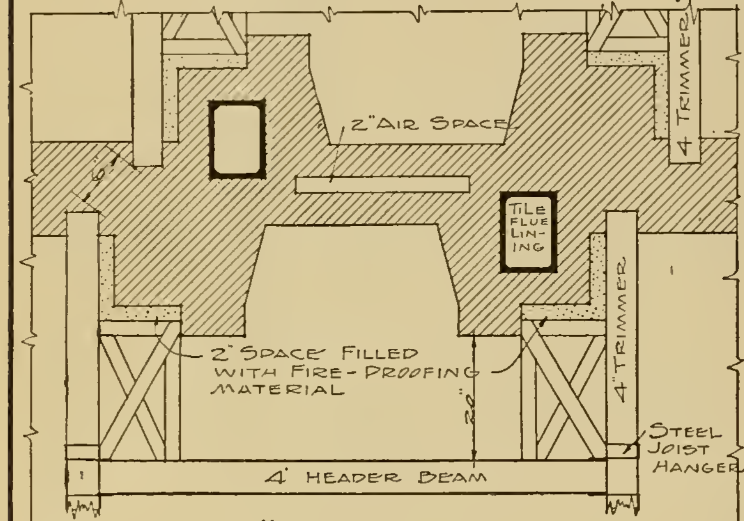


FIG. 2

METHOD FOR BUILDING TWO FIRE PLACES BACK TO BACK IN A BRICK PARTY WALL TO SECURE SPACE BETWEEN ENDS OF JOISTS.

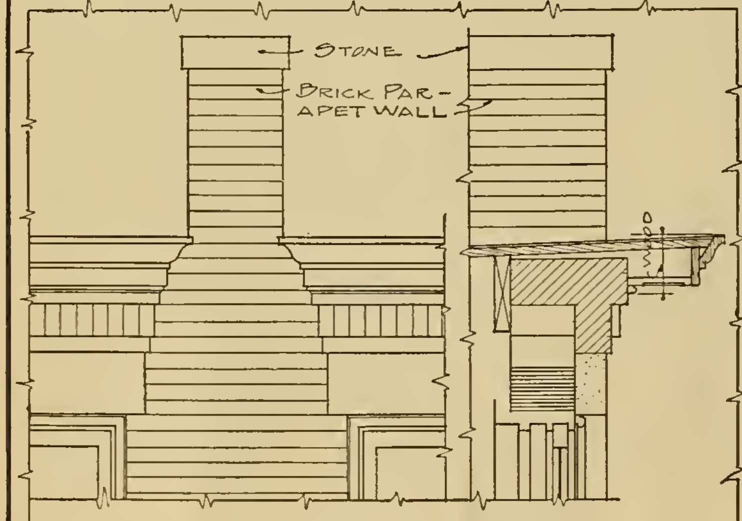


FIG. 3.

FIG. 4.

FIG. 3 AND 4 - ELEVATION AND SECTION OF WOODEN CORNICE ON A BRICK WALL. NOTE SEPARATION OF CORNICE ON LINE OF PARTY WALL.

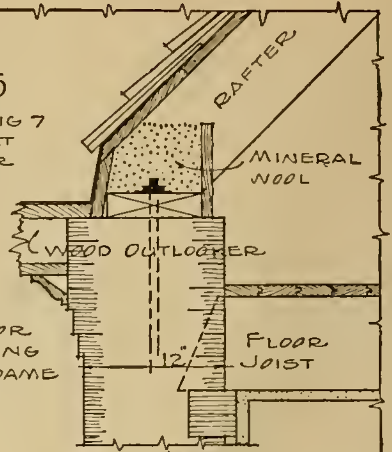


FIG. 5

SAME AS FIG 7 EXCEPT THAT ATTIC FLOOR JOISTS ARE ANY DISTANCE BELOW THE PLATE AND BUILT INTO THE WALL SUPPORT FOR FIRE-STOPPING MIGHT BE SAME AS IN FIG 7

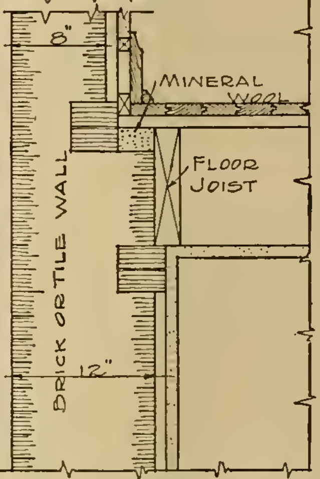


FIG. 6

FIRE-STOPPING AT A FLOOR LEVEL WHEN THE WALL IS THINNER ABOVE THE FLOOR THAN BELOW

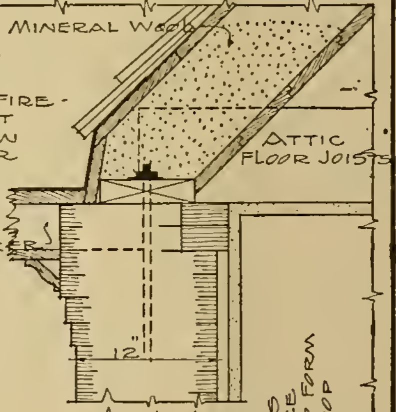


FIG. 7

METHOD OF FIRE-STOPPING AT EAVES WHEN ATTIC FLOOR JOISTS ARE LEVEL WITH PLATE

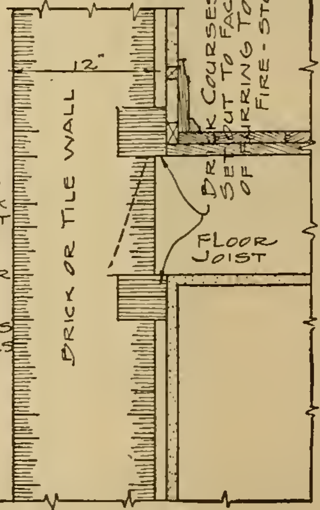


FIG. 8

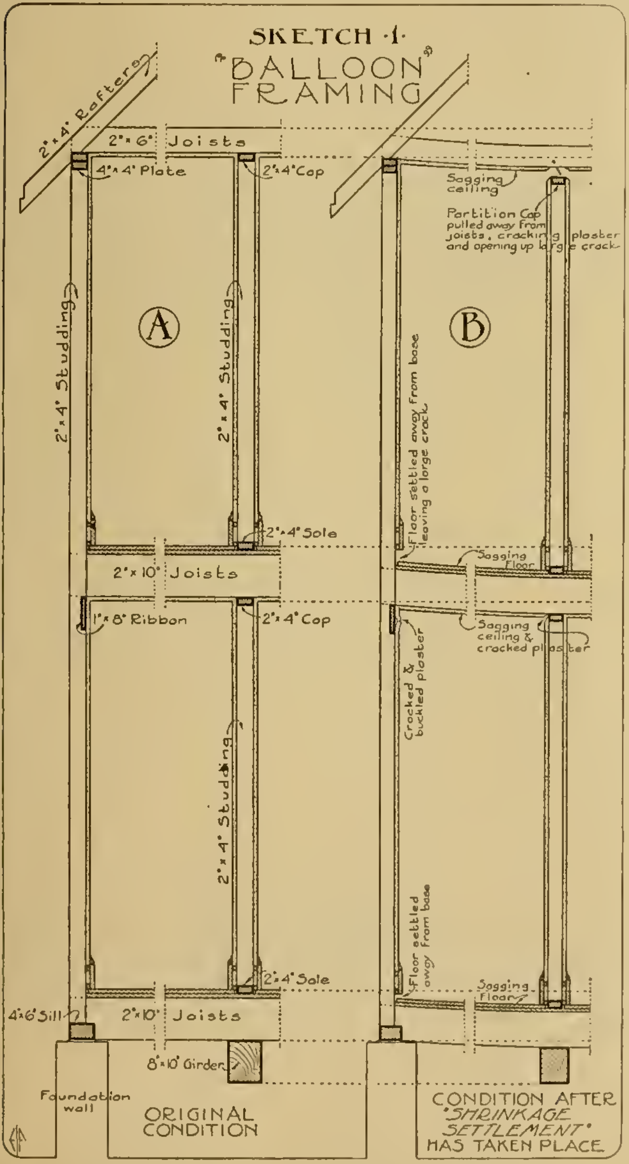
IN THIS AND THE OTHER FIGURES OF THIS PLATE NOTE FIRE-STOPPING OF WOODEN FURRING BY TWO COURSES OF BRICK WORK BEING SET OUT TO FACE OF FURRING, ABOVE AND BELOW FLOOR JOISTS ALL AROUND THE BUILDING OTHER TYPES OF MASONRY WALLS SHOULD BE BUILT OUT IN THE SAME MANNER

Details of Brick Walls with Mineral Wool Filler at Eaves and Floors; Also Double Fireplace Detail.

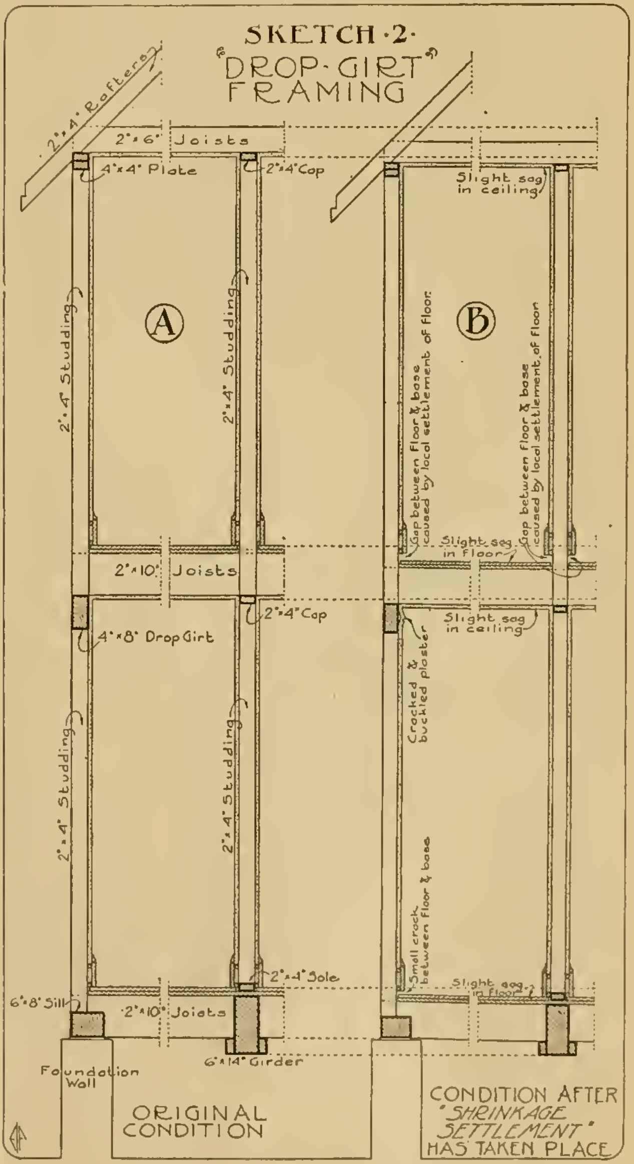
Framing to Prevent Unequal Shrinkage-Settlement

SKETCH No. 1 shows a cross-section of a "balloon" frame taken from an actual example. It is a glaring violation of all the principles of good construction, fire-resistance and sanitation. It's a fire trap, a vermin harbor, and is subject to a disastrous amount of *unequal settlement*. At "A" is shown the original condition of the framework just after being built. At "B" is indicated, graphically, the dilapidated and deplorable condition of affairs, a year later, after the inevitable shrinkage-settlement has taken place. And it is to be especially noted that the faults shown are not the result of settlement itself, but rather the result of the *difference* in settlement of corresponding and adjacent parts. If an engineer were to design a foundation in such a manner as to be productive of the faults shown, he would, most assuredly, be considered an exceedingly poor engineer. And rightly so. Why, then, in the name of common justice, is not the builder who, day after day, continues to design and frame the timber superstructure in the manner shown, deserving of the same amount of condemnation as the discreditable engineer? Wherein is the difference between an incompetent designer of foundations and an incompetent designer of timber framing? As a matter of fact, the latter, in this particular case, is more to be censured than the former, for, in residence construction, seven cases out of ten the evils resulting from unequal settlement can be traced to the timber framework rather than to the foundation.

In the "balloon" framing, shown in Sketch No. 1, the exterior studding extends in one length from sill to rafter plate. Hence, the amount of shrinkable timber contributing to the total vertical settlement of the exterior wall is made up of the 4-inch sill and the 4-inch rafter-plate, equaling 8 inches in all. In like manner, the shrinkable bearing-timber in the interior partition is made up of the 10-inch girder, the two sets of 10-inch floor-joists, the two layers of 1-inch sub-flooring, the two 2-inch partition-soles, and the two 2-inch partitioning caps, totaling 40 inches. Hence, assuming an ultimate shrinkage of ½ inch to the foot, the exterior wall will settle 1/24th of 8 inches, or only ⅓ inch, while the interior partition will settle 1/24th of 40 inches, or 1⅔ inches. And the *difference* of 1⅓ inches is bound to cause trouble—floors sag, door frames are thrown out of square, plastering cracks, and the upper partition sometimes

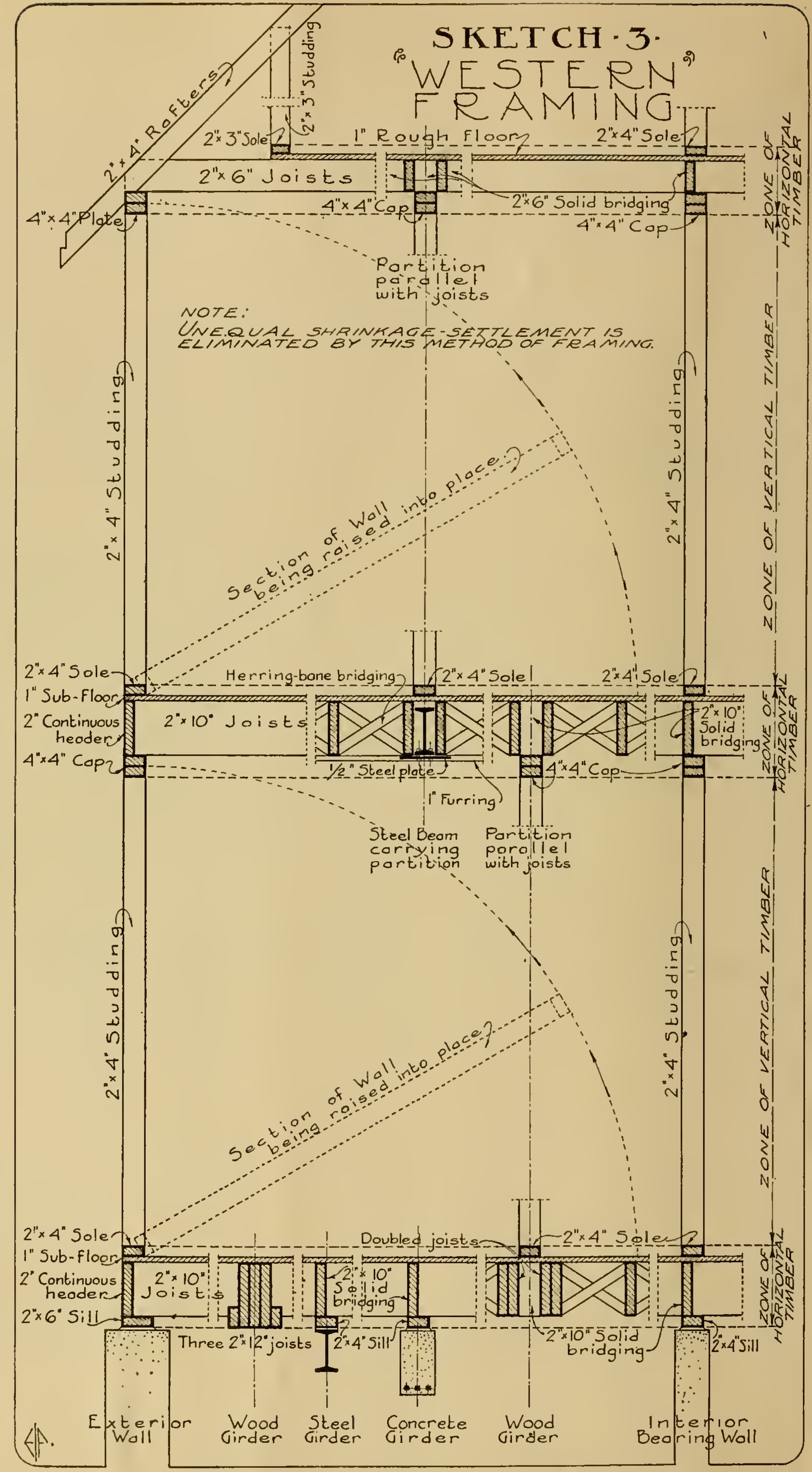


Showing Settlement Which Is Customary with Balloon Framing.

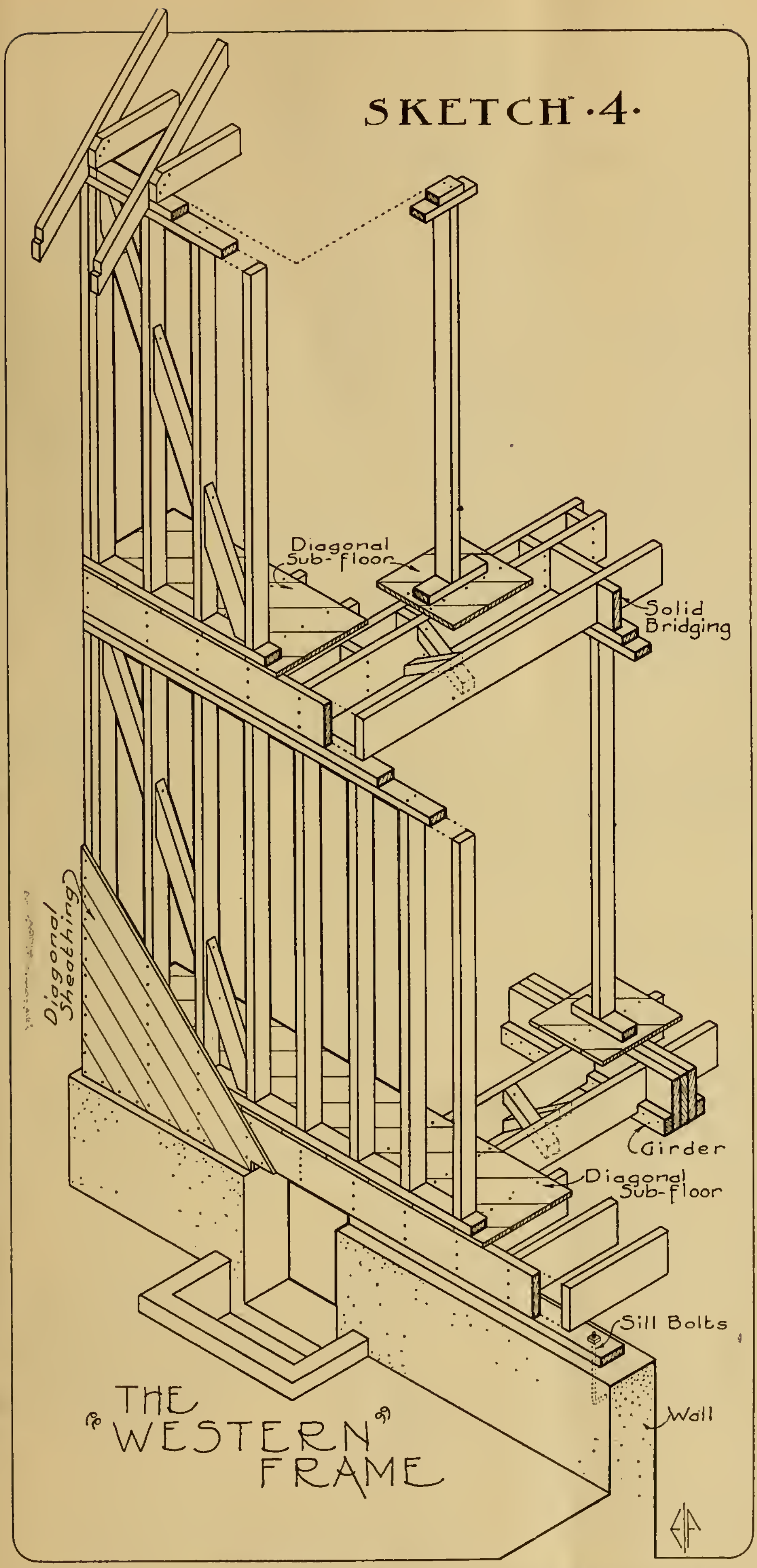


Showing Shrinkage Settlement with Drop-Girt Framing.

parts company with the ceiling overhead, or, perhaps, pulls away from the floor and hangs suspended from the ceiling-joints. Trouble enough, surely! But that is not all. Damaging local settlement also takes place at the outer ends of the floor joists, often leaving a wide gap between the finish floor and baseboard, as shown exaggerated in the sketch. At the second floor line the total shrinkage of the 1-inch sub-floor, the 10-inch joists, and the 8-inch ribbon will measure the magnitude of the gap, equaling, in this case, about ¾ inch, for this shrinkage will always be *downward,* in the direction of the load, while no compensating relative settlement will take place in the vertical studding which extends thru this "zone" of horizontal bearing-timber. The base does not move in relation to the studding. But the floor *does.* Hence, the gap. At the interior partitions, however, the vertical studding does not extend thru the floor-construction. Therefore the base and the studding *both* move downward in response to the settling floor. In other words, the settlement is here *general* rather than *local.* Hence, no gap occurs between the finish floor and base. On the other hand, if the settlement continues, the base might buckle, or become split, because of the relative upward thrust of the excessively sagging floor. Moreover, this general settlement, not being equalized, is bound to open up a crack in the plastering at the junction of the ceiling and wall underneath. And, finally, the wide ribbon supporting the outer ends of the second floor joists is liable to more relative shrinkage than the plastering that covers it. This is the cause of numerous



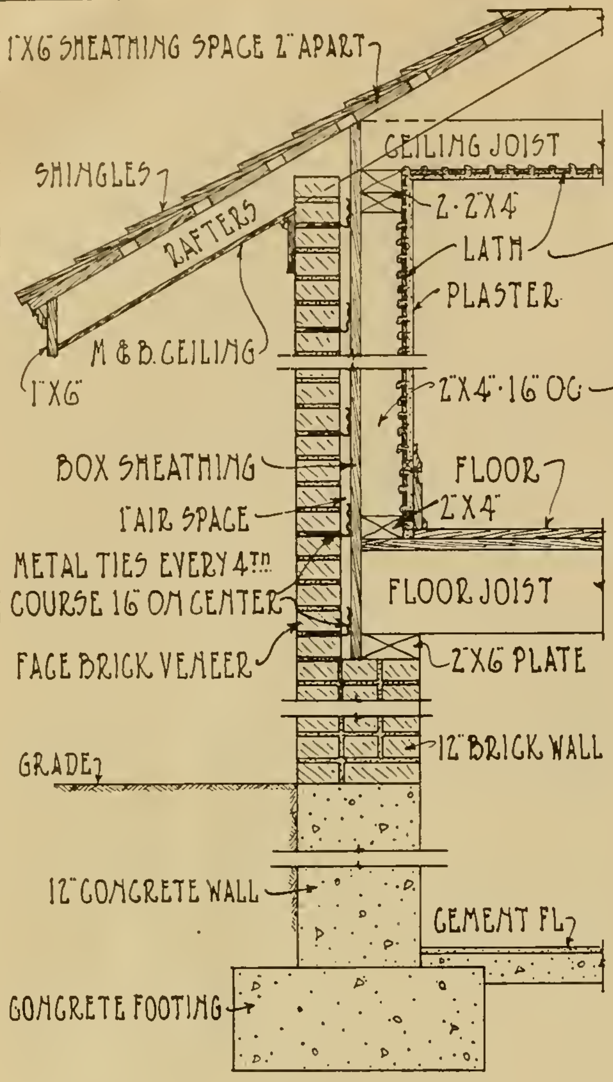
Western Framing Which Strives to Eliminate All Unequal Shrinkage Settlement.



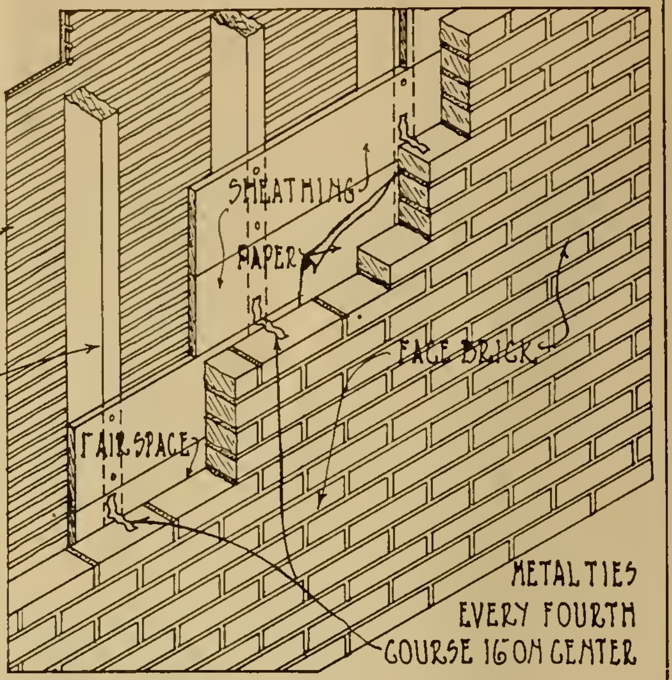
Perspective of All Wood Western Frame. Designed to Prevent Unequal Shrinkage Settlement.

plaster cracks in this vicinity and, if this shrinkage is excessive, the plaster will buckle and, perhaps, fall from this portion of the wall.

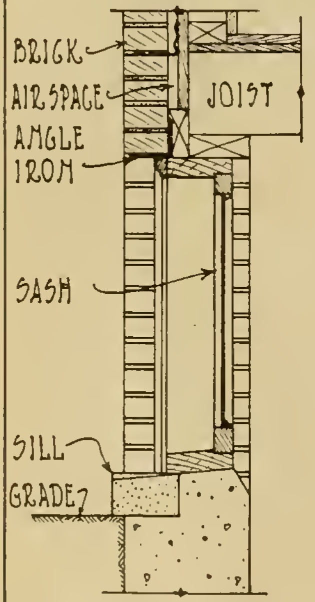
Sketch No. 2 shows a cross-section of a "drop-girt" frame as called for by the most approved practice. At "A" is shown the original condition of the frame upon completion, while at "B" is shown the same construction after the usual shrinkage-settlement has taken place. While this frame is far superior, in every way, to the "balloon" frame, yet it is, nevertheless, subject to the same resultant evils, even tho these evils be of lesser extent. In the "drop-girt" frame, the second-story exterior studding and the outer ends of the second floor joists are supported upon the 4-inch by 8-inch girt, while the upper interior partition studding rests upon the 2-inch partition cap of the story below, as clearly indicated in the sketch. Moreover, the 6-inch by 14-inch first-floor girder is framed with the top of the joists. Consequently the *general* settlement has been almost, but not entirely, equalized. There will still be a slight sag in the floors and ceilings, but probably not enough to crack the plastering. The sag in the first floor, in this instance, is equal to the difference in settlement between the 14-inch girder and the 10-inch joists, amounting to but 1/24th of 4 inches, or a little more than an eighth of an inch, while the sag in the second floor will be not quite one-quarter of an inch, and the sag in the second-story ceiling will equal the difference in the total general settlement of the exterior and interior walls, amounting to exactly an eighth of an inch. But, as before said, this slight sagging will probably cause no serious damage. However, the *local* settlement occurring at the outer ends of the first floor joists, and at *both* ends of the second floor joists, cannot be so easily overlooked. At all of these points, as shown in the sketch, the vertical studding extends into the "zone" of the floor-construction. Hence, the floor settles *in relation to the studding* and therefore opens up a gap between the floor and base, being more pronounced at the second floor-level because of the greater depth of shrinkable material existing there between the top of the sub-floor and the bearing-surface of the joists. A gap of ½ inch or more is not an uncommon occurrence. An attempt to remedy this fault is sometimes made by placing a base-shoe at the junction of base and floor, and nailing same to the floor only, thus keeping the gap "covered."



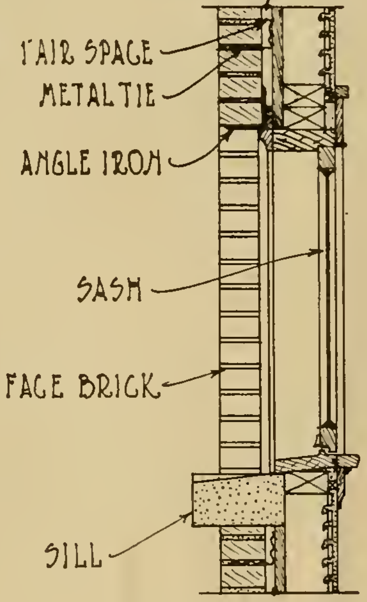
WALL SECTION OF BRICK VENEER BUILDING



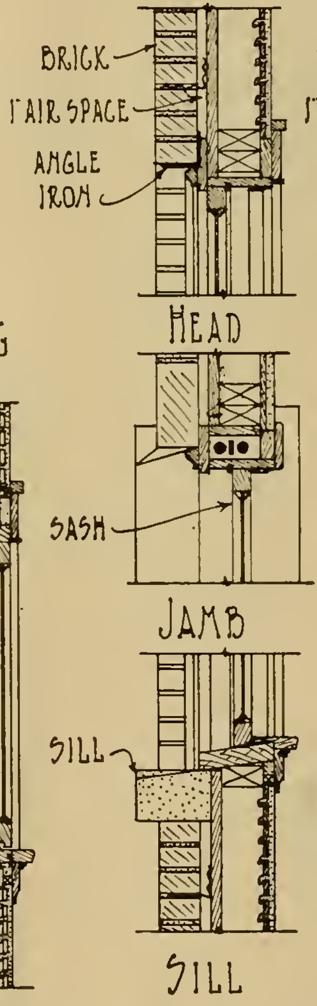
ISOMETRIC VIEW SHOWING BRICK VENEER CONST.



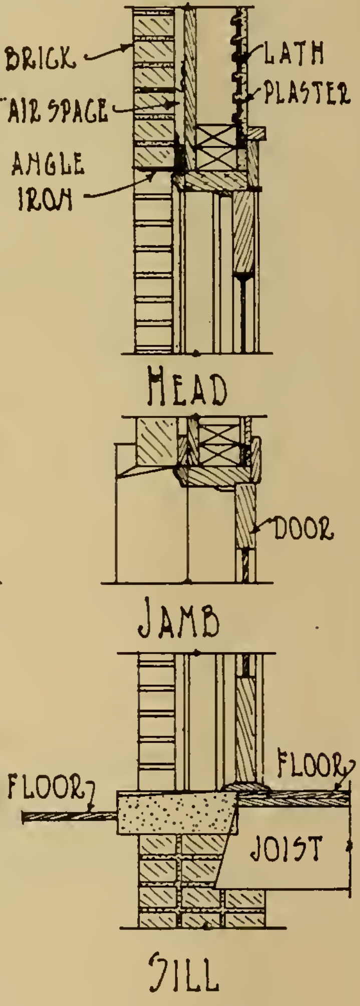
CELLAR SASH DETAIL



CASEMENT SASH DETAIL

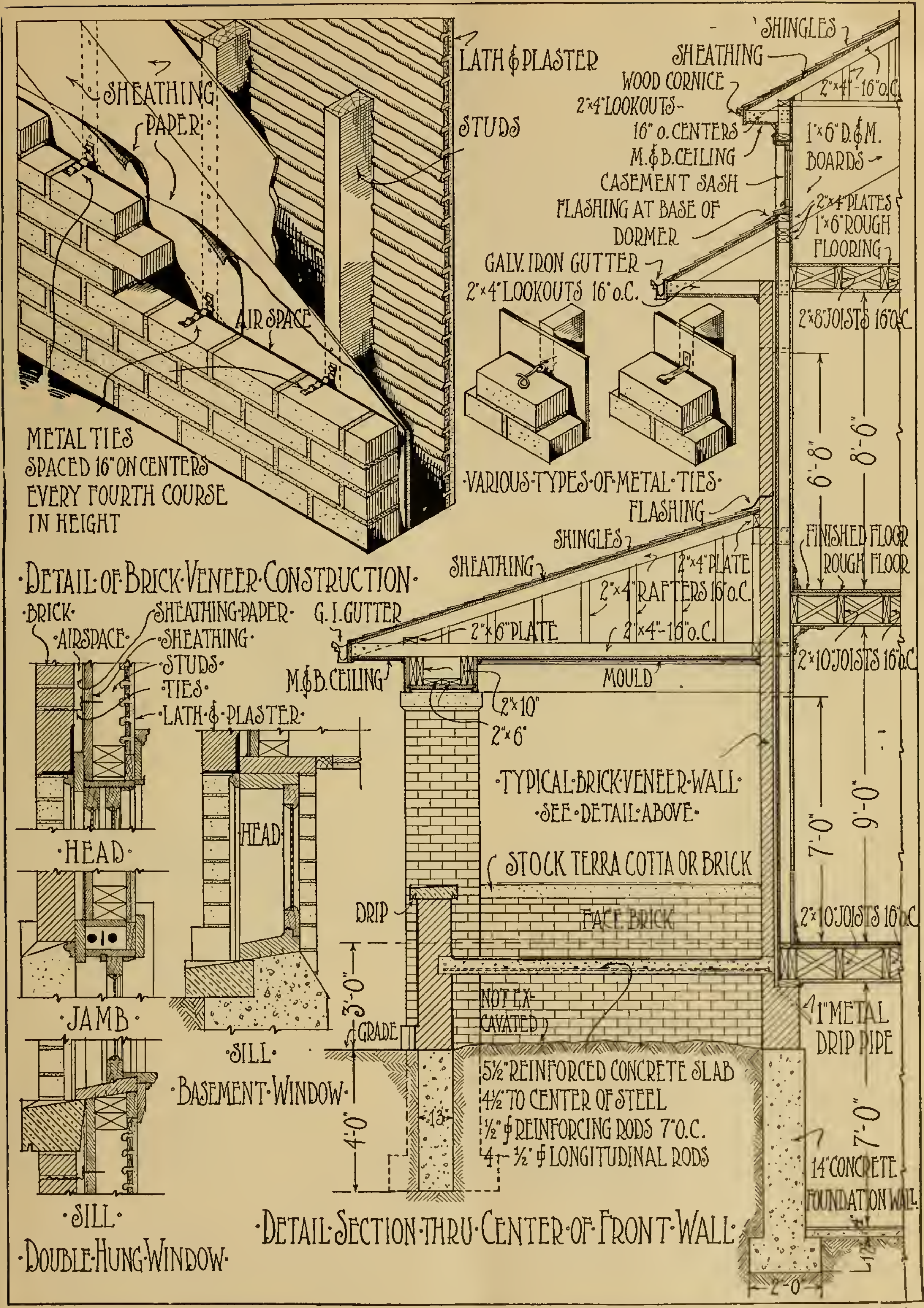


WINDOW DETAIL

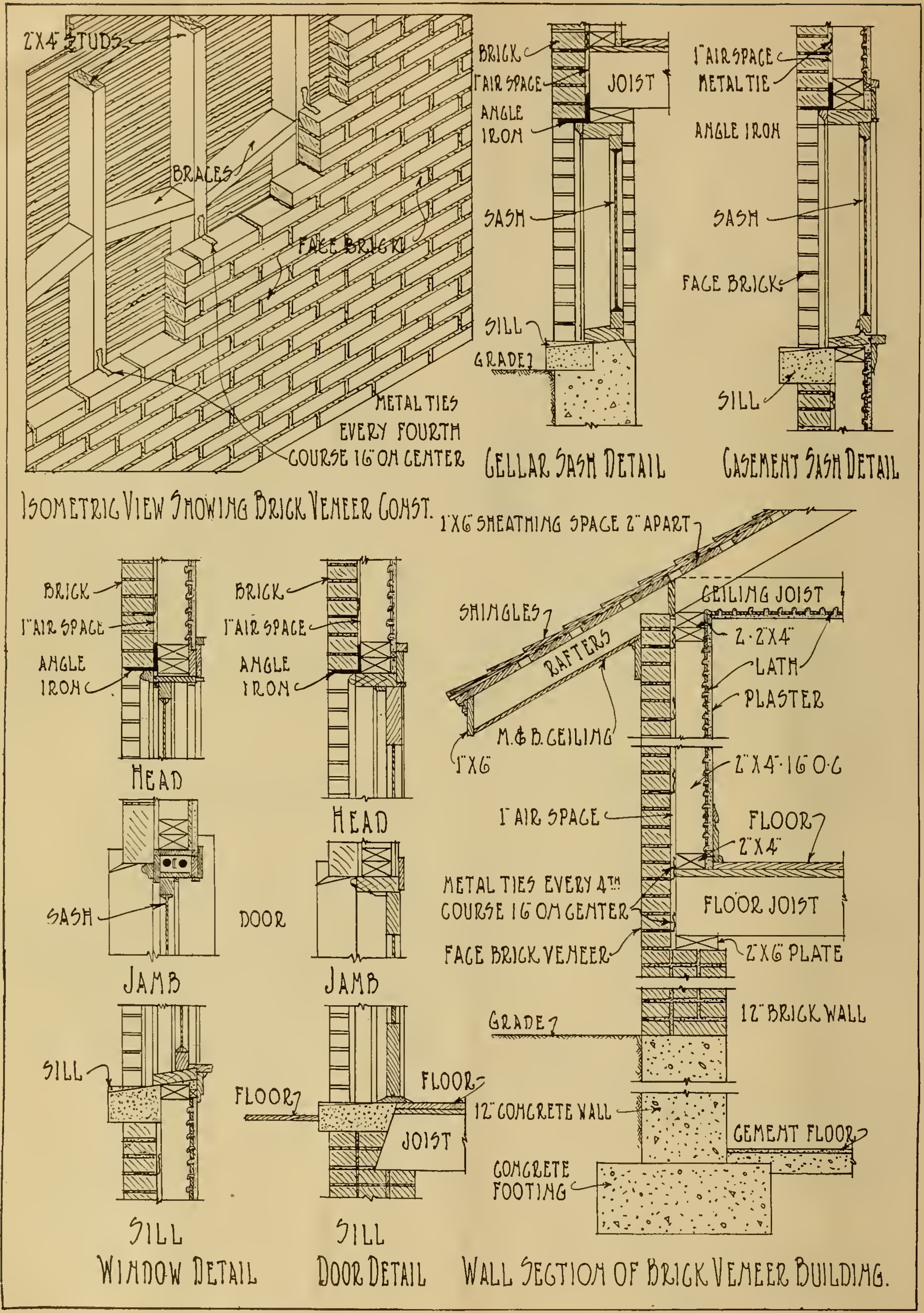


DOOR DETAIL

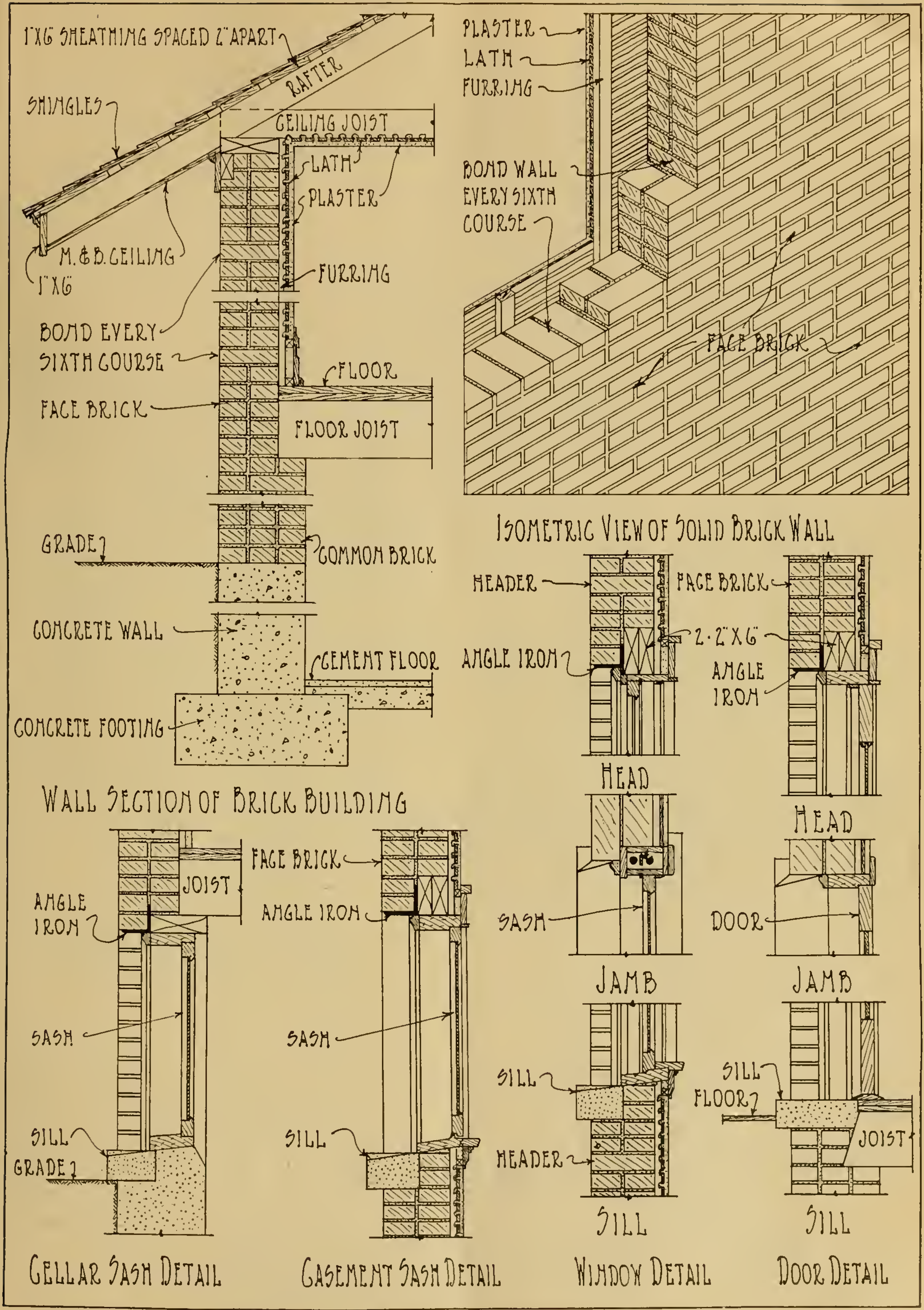
Face Brick Veneer Anchored by Means of Metal Ties to Sheathed Wood Frame of Building.



Details of Brick Veneer Construction—Four-Inch Face Brick Bonded to Wood Sheathing at Every Joist by Means of Metal Ties in Each Fourth Mortar Joint.



Details of Wall Construction, Including Window and Door Details of Face Brick Veneer Over Braced Wood Frame Without Sheathing. The Least Expensive Face Brick Construction for Residences and Other Small Buildings.



WALL SECTION OF BRICK BUILDING

ISOMETRIC VIEW OF SOLID BRICK WALL

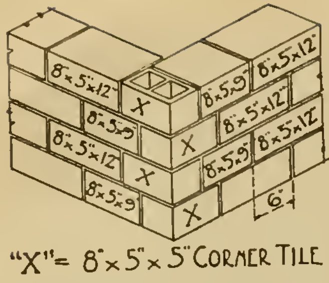
CELLAR SASH DETAIL

CASEMENT SASH DETAIL

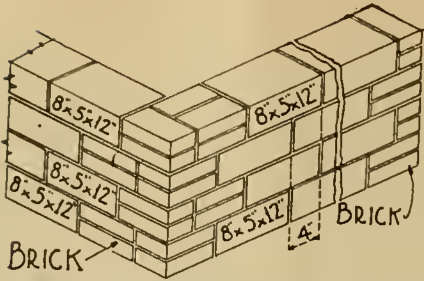
WINDOW DETAIL

DOOR DETAIL

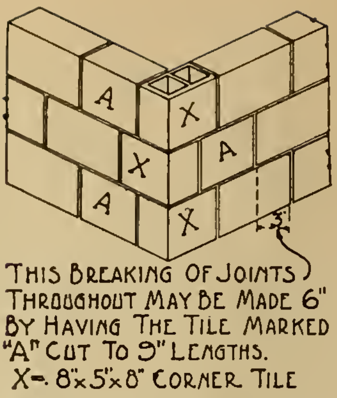
Structural Details of the All-Brick Wall Type of Construction in Which a Masonry Bond Is Used Between the Face Brick Outer Courses and the Common Brick Backing.



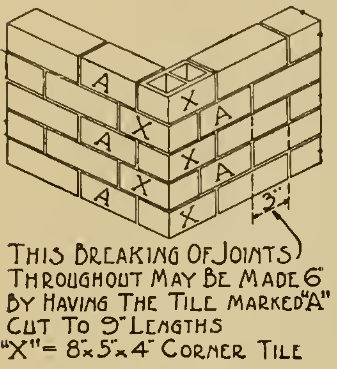
Corner Bonding Detail for 8-Inch Walls of 8 by 5 by 12-Inch Hollow Tile.



Detail for Bonding Corners and Finishing Around Openings of 8-Inch Hollow Tile Walls with Common Brick.


A
X
3"
THIS BREAKING OF JOINTS THROUGHOUT MAY BE MADE 6" BY HAVING THE TILE MARKED "A" CUT TO 9" LENGTHS.
X= 8"x5"x8" CORNER TILE

Corner Bonding Detail for 5-inch Walls by 8 by 5 by 12-Inch Hollow Tile.


A
X
3"
THIS BREAKING OF JOINTS THROUGHOUT MAY BE MADE 6" BY HAVING THE TILE MARKED "A" CUT TO 9" LENGTHS
"X"= 8"x5"x4" CORNER TILE

Corner Bonding Detail for 5-Inch Walls of 4 by 5 by 12-Inch Hollow Tile Laid on the 5-Inch Bed. When Laid on the 4-Inch Face for 4-Inch Walls, the Corner Tile Would Be of 4 by 8-Inch Sections Cut to 4-Inch Length (4 by 8 by 4-Inch), Giving a 4-Inch Breaking of Joint.

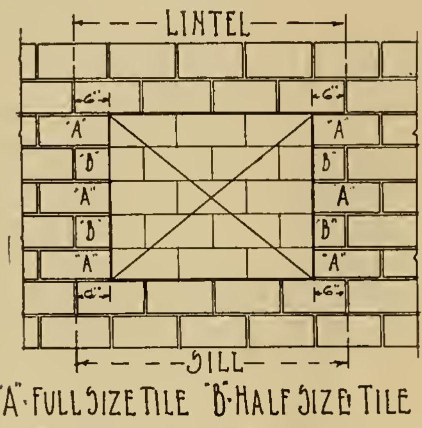
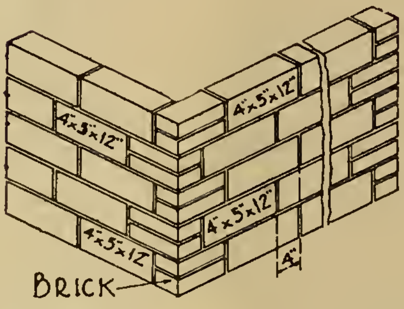


Diagram Showing Placing of Opening in Hollow Tile Wall Having a 6-Inch Bond Between Courses.



Detail for Bonding Corners and Finishing Around Openings of 4-Inch Hollow Tile Walls with Common Brick.

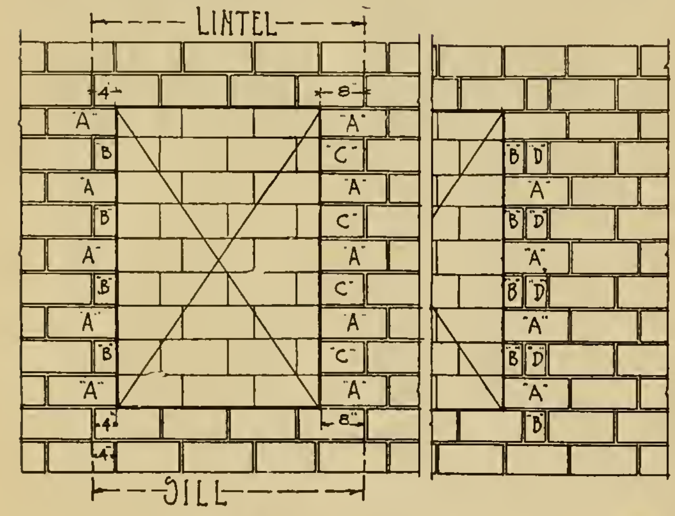
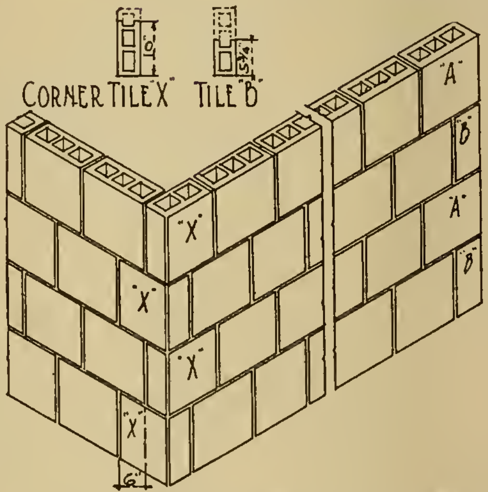
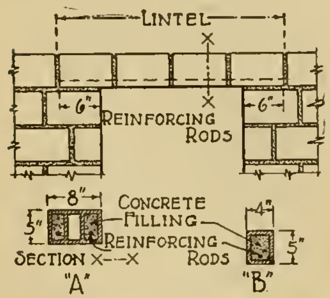


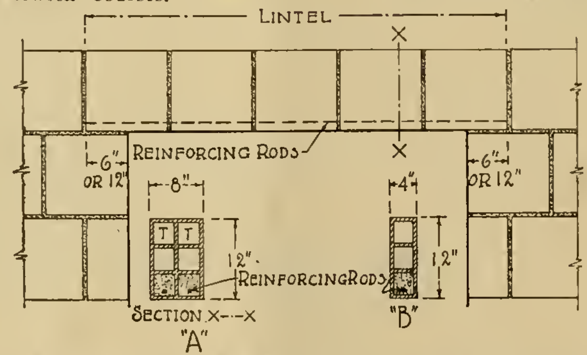
Diagram Showing Placing of Opening in Hollow Tile Wall Having a 4-Inch Running Bond Between Courses.



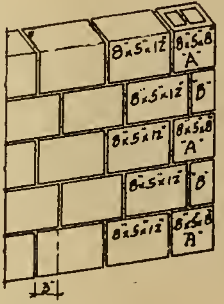
Corner and Jamb Detail for 4-Inch Walls of 4 by 12 by 12-Inch Hollow Tile. Detail for Wall 3 by 12 by 12-Inch Hollow Tile Would Be Similar, Excepting That Corner Tile "X" Would Be Cut as Close to 9 Inches as Possible.

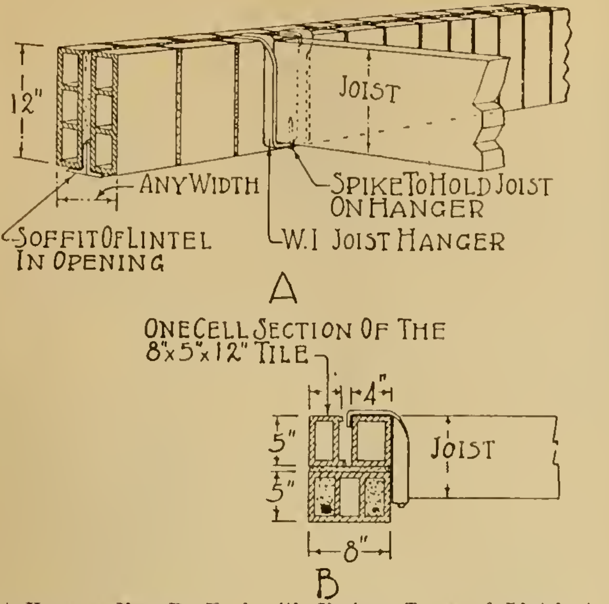


Section "A" for 8-Inch Walls of 8 by 5 by 12-Inch Tile; Section "B" for 4-Inch Walls of 4 by 5 by 12-Inch Tile and for Combining with Section "A" to Form Lintel for 12-Inch Wall Built of These Two Shapes. Similarly for 16-Inch Thick Wall Two Lintels of Section "A" Would Be Used.

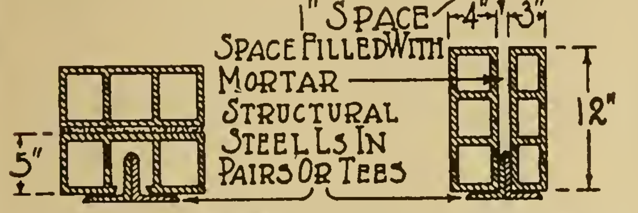


Section "A" for 8-Inch Walls of 8 by 12 by 12-Inch Tile; Section "B" for 4-Inch Walls of 4 by 12 by 12-Inch Tile and for Combining with Section "A" to Form Lintel for 12-Inch Wall. Lintels Made of Single Blocks Similar to Section "A," but 10 and 12 Inches in Thickness, Are Used for 10 and 12-Inch Walls, Respectively. All Lintels for Section "A" Type for Fairly Wide Openings, Particularly for 10 and 12-Inch Walls, Should Have One or Both of the Cells "T" Filled with Concrete, Reinforced with a Light Rod or Heavy Wire to Prevent Breakage in Handling.

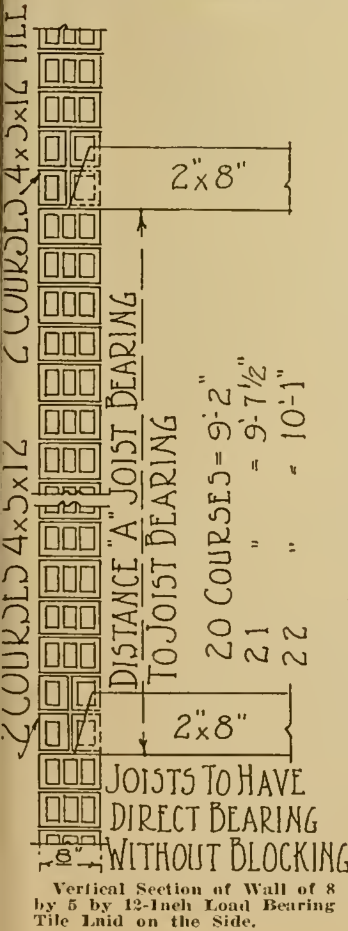



12"
JOIST
ANY WIDTH
SPIKE TO HOLD JOIST ON HANGER
SOFFIT OF LINTEL IN OPENING
W.I. JOIST HANGER
A
ONE CELL SECTION OF THE 8"x5"x12" TILE
4"
5"
5"
JOIST
8"
B

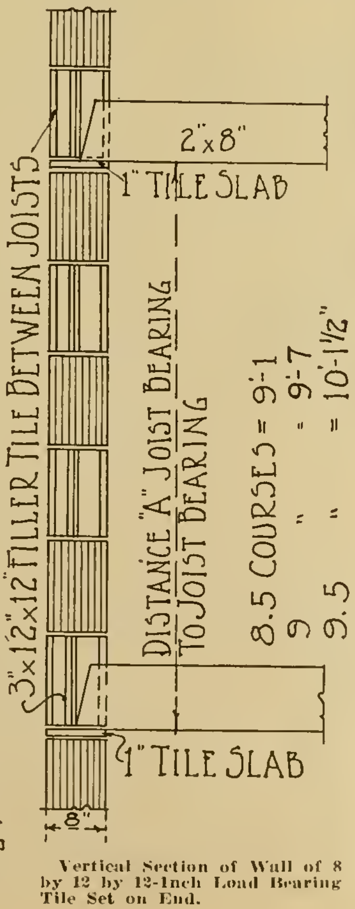
Joist Hangers May Be Used with Various Types of Lintels to Keep Head of Window Opening Close to the Ceiling Line.



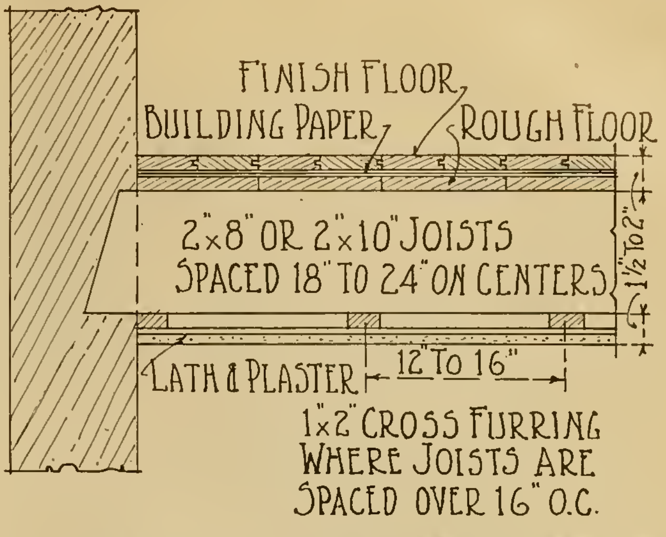
Lintels for Structural Shapes. Section "A" for 8-Inch Walls of 8 by 5 by 12-Inch Tile; Section "B" for 8-Inch Walls of 8 by 12 by 12-Inch Tile. The Size and Weight of Steel Shapes Required by Any Span and Loading May Be Figured from the Carnegie or Other Structural Steel Handbook. These Lintels Should Usually Have 12-Inch Bearing.



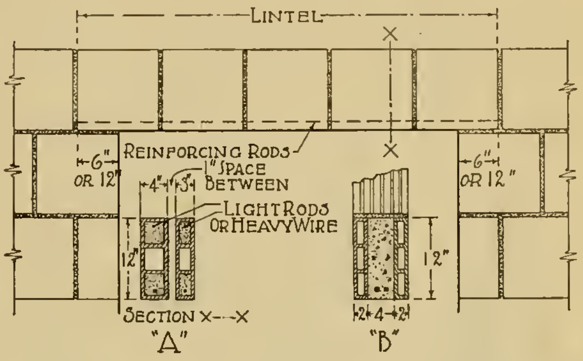
Vertical Section of Wall of 8 by 5 by 12-Inch Load Bearing Tile Laid on the Side.


3"x12"x12" FILLER TILE BETWEEN JOISTS
2"x8"
1" TILE SLAB
DISTANCE "A" JOIST BEARING TO JOIST BEARING
8.5 COURSES = 9'-1"
9 " = 9'-7"
9.5 " = 10'-1½"
1" TILE SLAB
8"

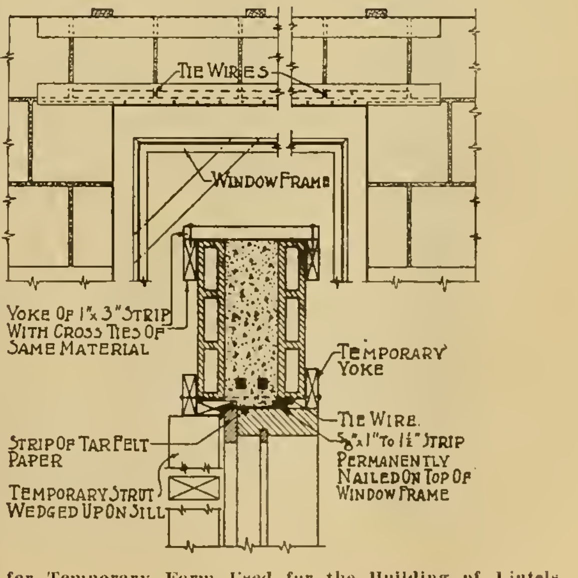
Vertical Section of Wall of 8 by 12 by 12-Inch Load Bearing Tile Set on End.


FINISH FLOOR
BUILDING PAPER
ROUGH FLOOR
2"x8" OR 2"x10" JOISTS SPACED 18" TO 24" ON CENTERS
1½" TO 2"
LATH & PLASTER
12" TO 16"
1"x2" CROSS FURRING WHERE JOISTS ARE SPACED OVER 16" O.C.

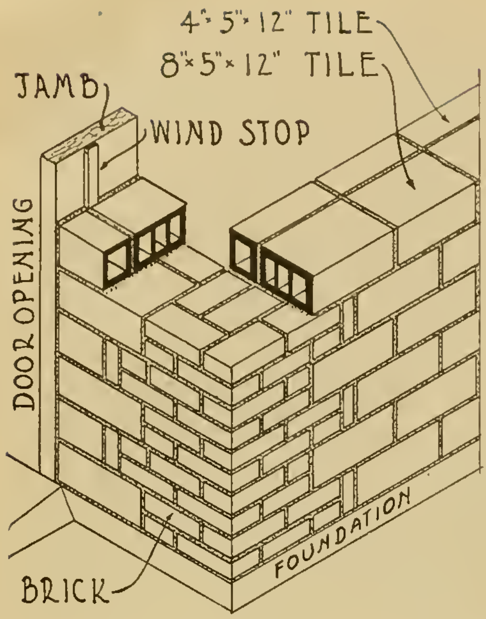
Total Depth of Floor Construction Taken as 10 Inches Where 2 by 6-Inch Joists Are Used; as 12 Inches Where 2 by 8-Inch Joists Are Used, and as 14 Inches Where 2 by 10-Inch Joists Are Used. Actually the Thickness Will Often Average About 1 Inch Less Than These Figures, Which Will Allow for the Leveling Up of Any Irregular Joist, or the Cross Stripping of Underfloor, so That the Finished Floor May Run in the Same Direction as the Underfloor.



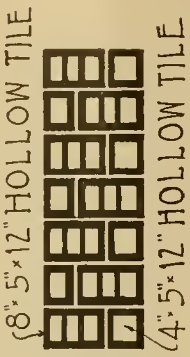
Section "A" for 8-Inch Walls of 8 by 12 by 12-Inch Tile; Section "B" for 4-Inch Walls of 4 by 12 by 12-Inch Tile and for Combining with Section "A" to Form Lintel for 12-Inch Wall. Lintels Made of Single Blocks Similar to Section "A" but 10 and 12 Inches in Thickness, Are Used for 10 and 12-Inch Walls, Respectively. All Lintels for Section "A" Type for Fairly Wide Openings, Particularly for 10 and 12-Inch Walls, Should Have One or Both of the Cells "T" Filled with Concrete, Reinforced with a Light Rod or Heavy Wire to Prevent Breakage in Handling.


TIE WIRES
WINDOW FRAME
YOKE OF 1"x3" STRIP WITH CROSS TIES OF SAME MATERIAL
TEMPORARY YOKE
TIE WIRE
STRIP OF TAR FELT PAPER
⅝"x1" TO 1¼" STRIP PERMANENTLY NAILED ON TOP OF WINDOW FRAME
TEMPORARY STRUT WEDGED UP ON SILL

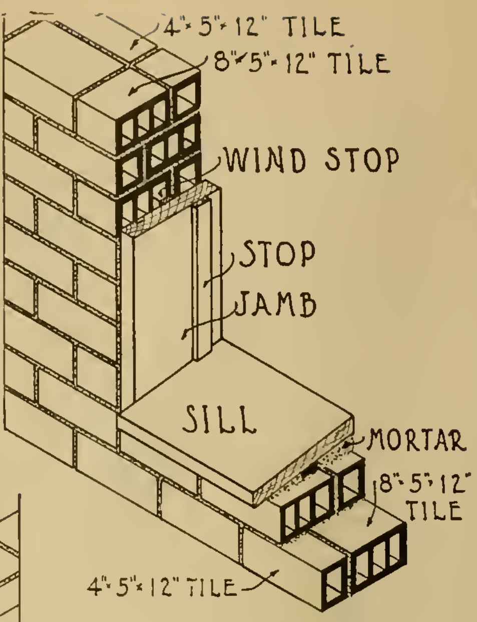
Details for Temporary Form Used for the Building of Lintels.



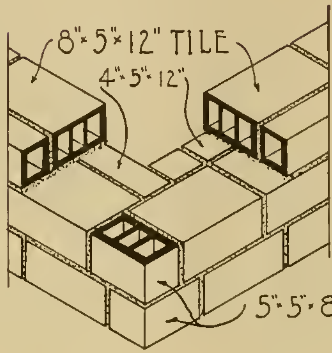
CORNER CONSTRUCTION WITH COMMON OR FACE BRICK

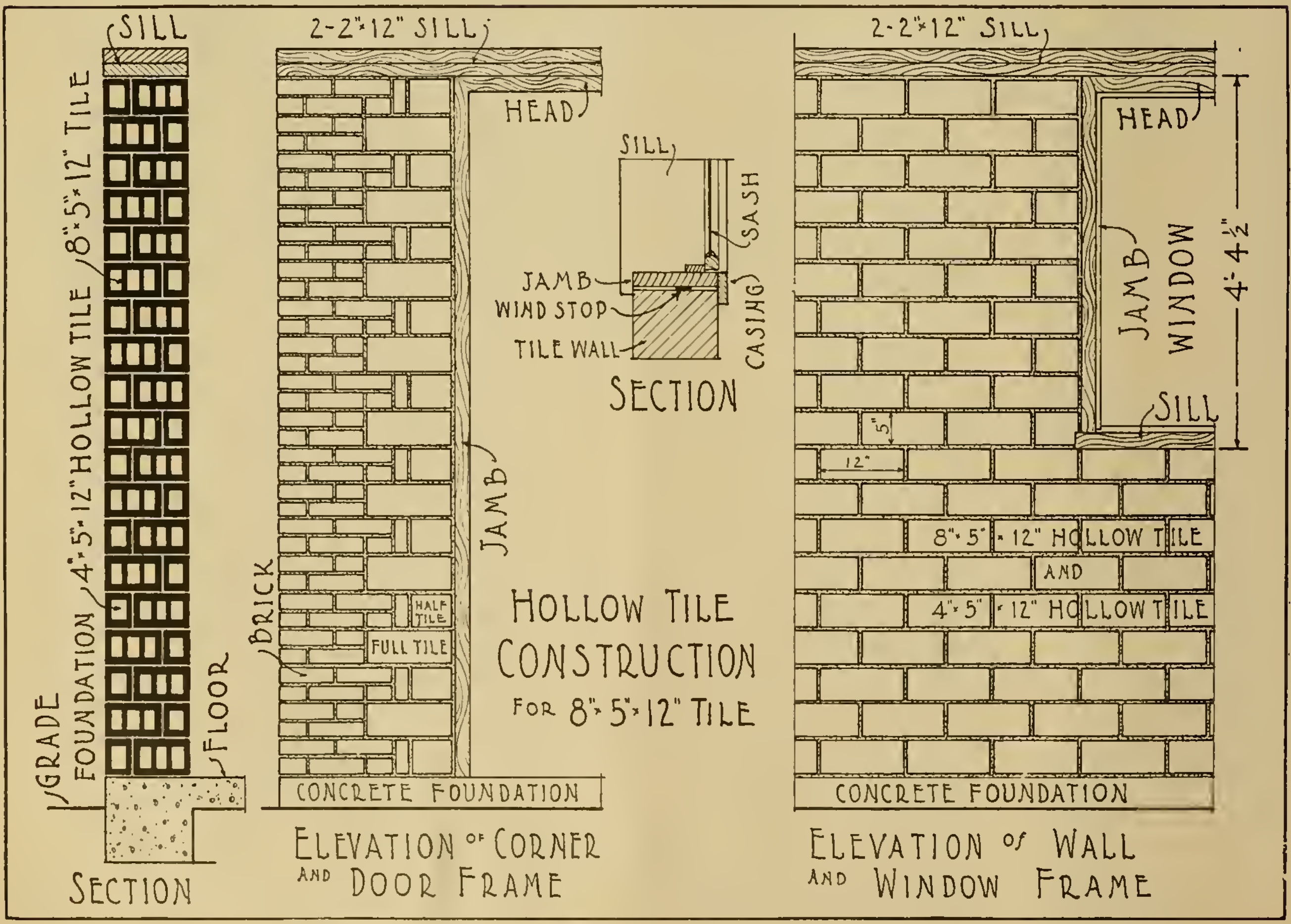


SECTION

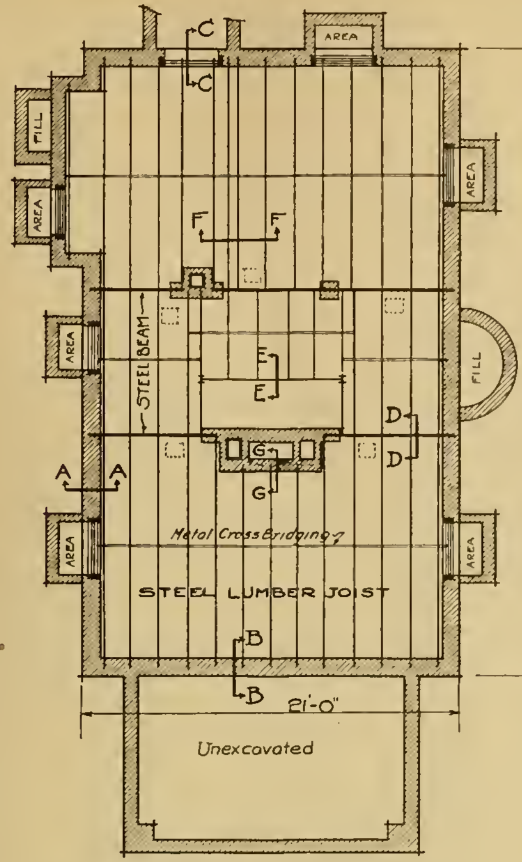


DETAIL OF WINDOW FRAME



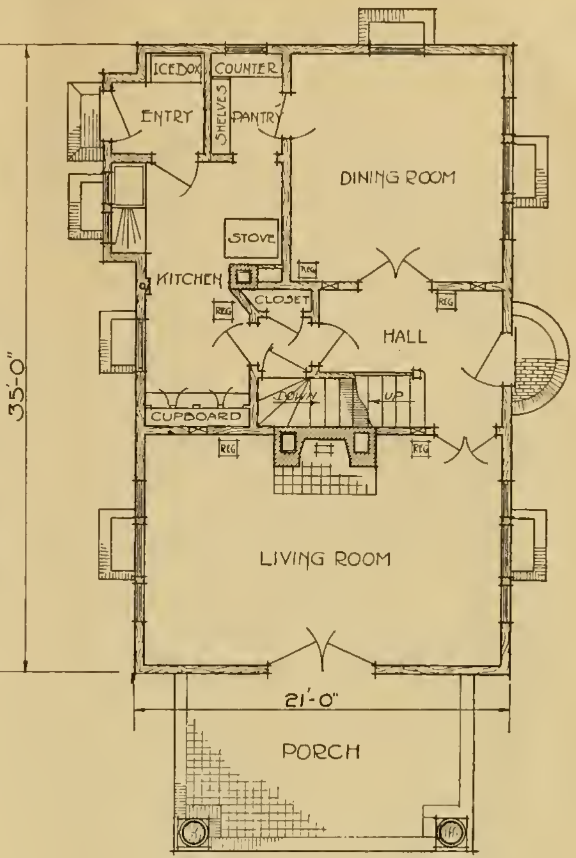


Complete Construction Details of a 12-Inch Basement Tile Wall Using 8 by 5 by 12 and 4 by 5 by 12 Tile.

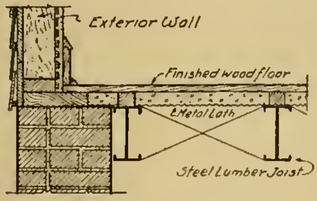


BASEMENT PLAN

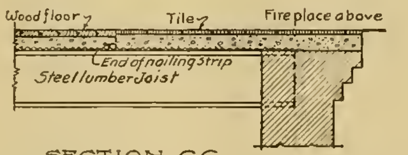
SHOWING STEEL LUMBER LAYOUT FOR FIRESAFE FIRST FLOOR.



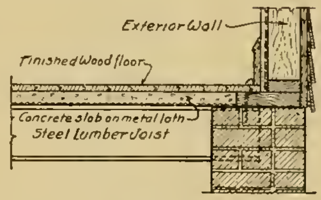
FIRST FLOOR PLAN



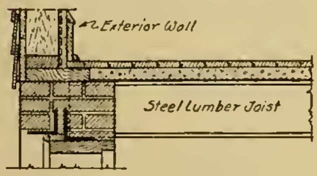
SECTION-AA



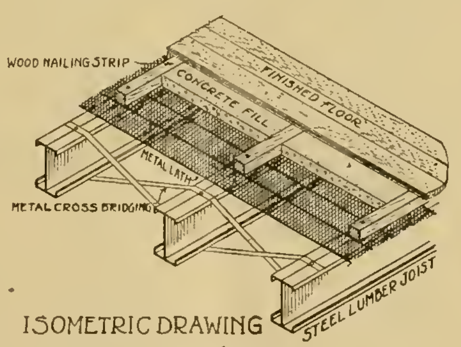
SECTION-GG



SECTION-BB

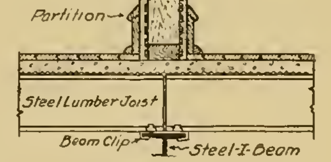


SECTION-C C

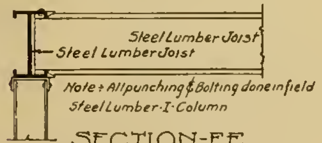


ISOMETRIC DRAWING

Showing steel lumber floor construction.

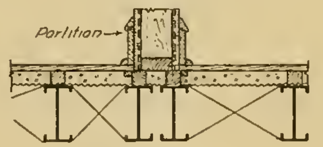


SECTION-DD

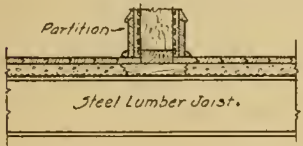


SECTION-EE

Showing steel lumber framing around stair opening

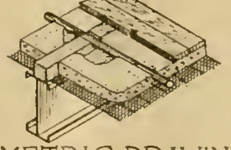


SECTION-FF



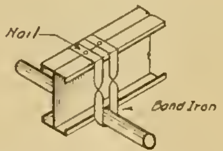
DETAIL

Showing partition running at right angle to Steel Lumber Joist.



ISOMETRIC DRAWING

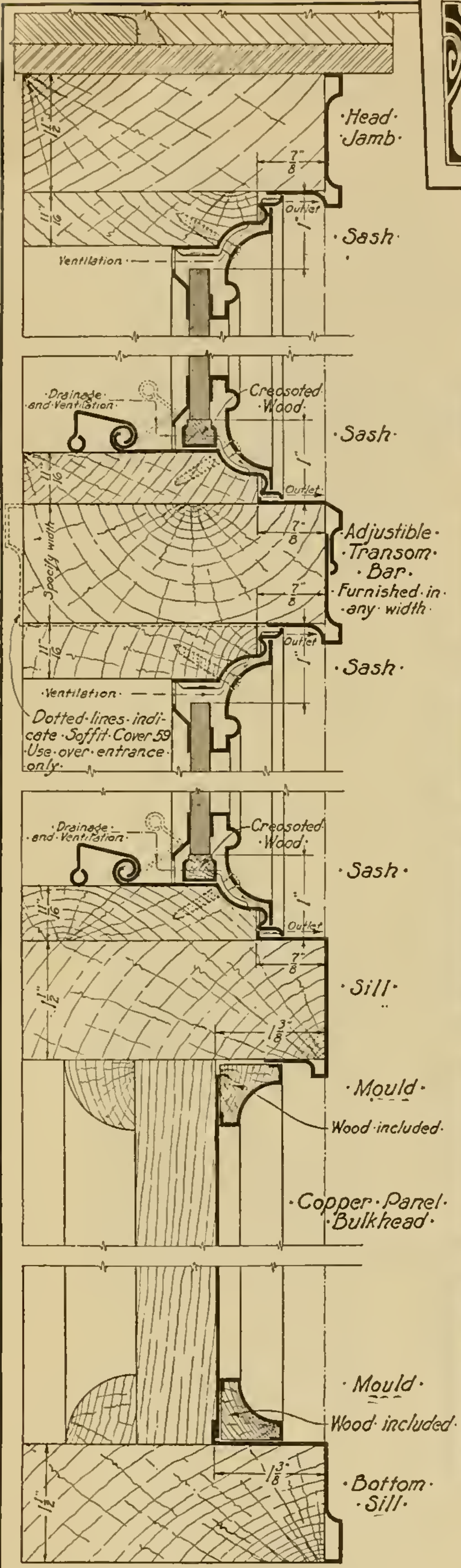
Showing nailing strip notched out so that water pipes or wire conduits can be placed under wood floor into concrete slab.



ISOMETRIC DRAWING

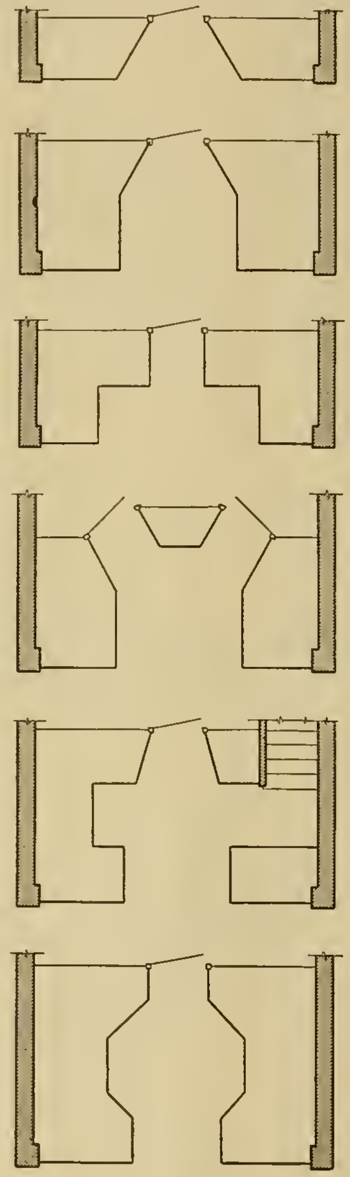
Showing method used to suspend pipes from steel lumber floor Joist

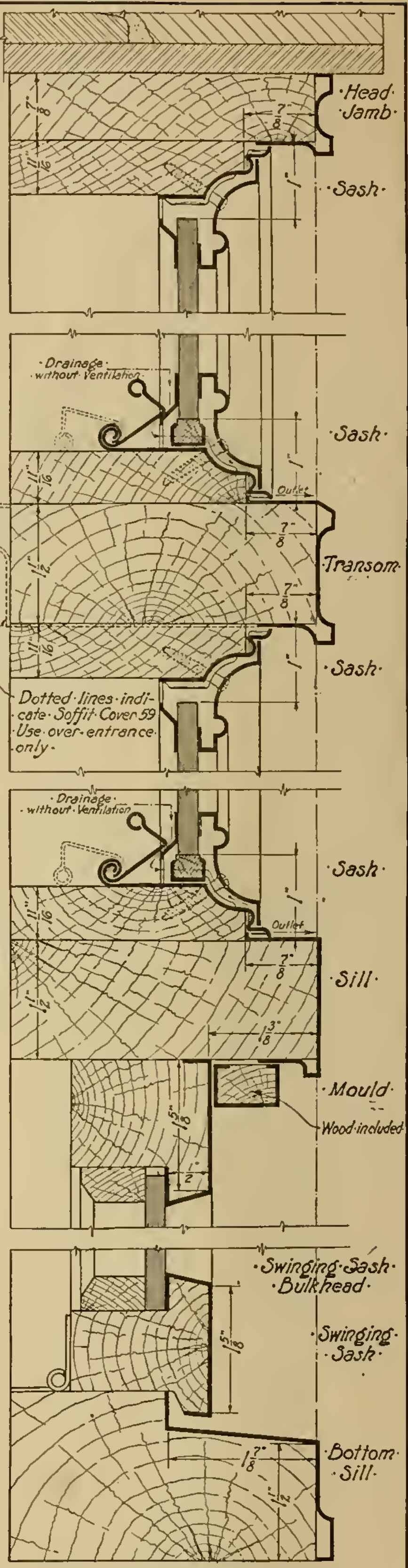
Essentials of Steel Lumber Floor Construction as Used in Average Masonry Dwellings.



·Vertical·Section·thru·Store·Front·

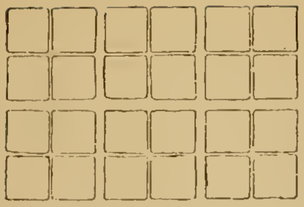
·A·few·suggestions·for·
·store·front·designing·



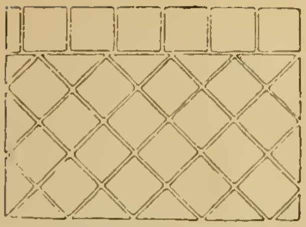


·Vertical·Section·thru·Store·Front·

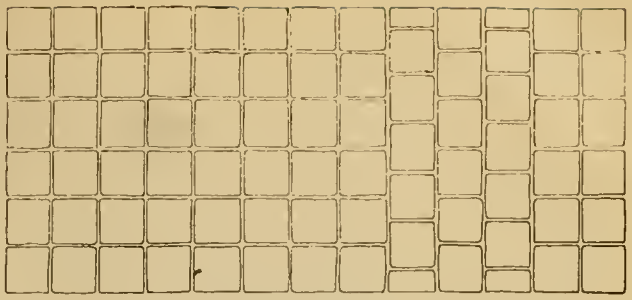
Floor Plans and Typical Details of Construction for Modern Display Windows for Stores.



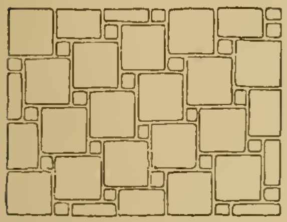
By groups of four squares as a unit separated by wider joints, the scale is increased.



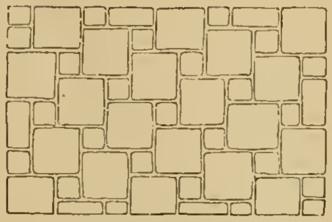
A diagonal pattern of square tiles is emphasized by a border.



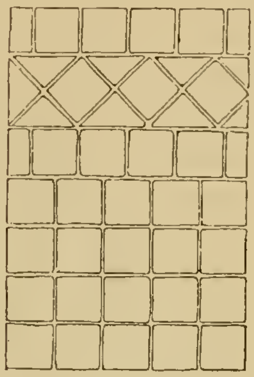
By a few rows of broken joints, an effect of border is produced in a field of square tiles.



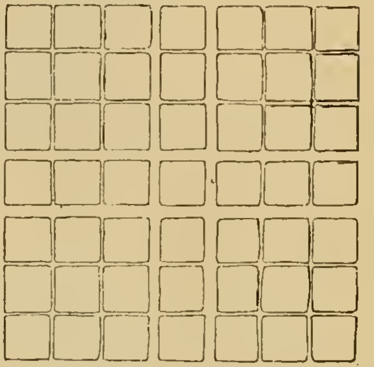
When the small squares are less than one-quarter of the area of the large squares, the pattern runs off at the side.



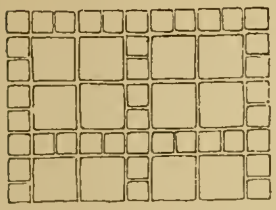
When the small squares are one quarter of the area of the large squares, the pattern has more repose.



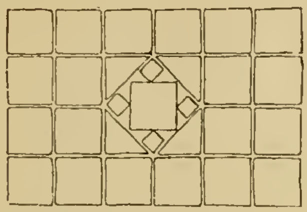
By breaking joints in one course, the border is made wide.



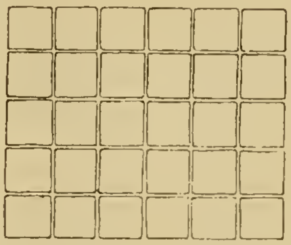
An arrangement adapted to large rooms.



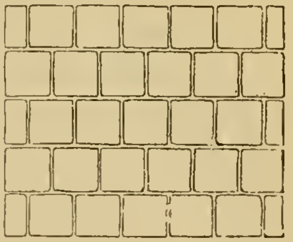
· Another way to increase the scale with small tiles.



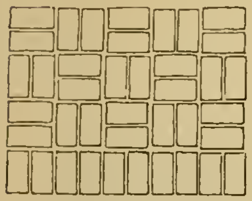
A decorative pattern that can be made on the job.



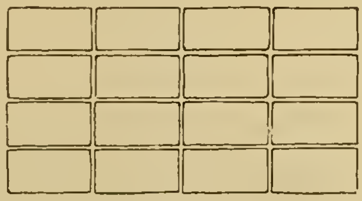
The simplest floor of square tiles is interesting if the joints are in scale.



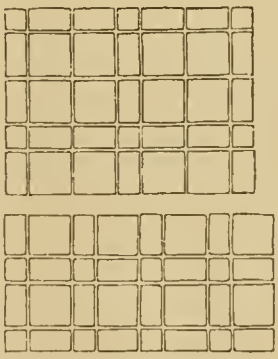
When square tiles are laid with broken joints, long lines in one direction are the result.



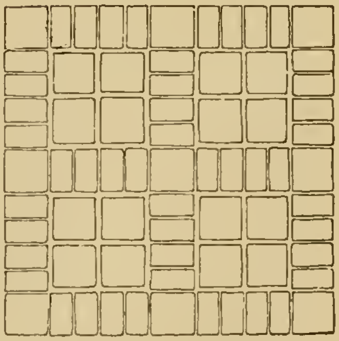
When double squares are laid "basket pattern," the necessary allowance for joints adds interest.



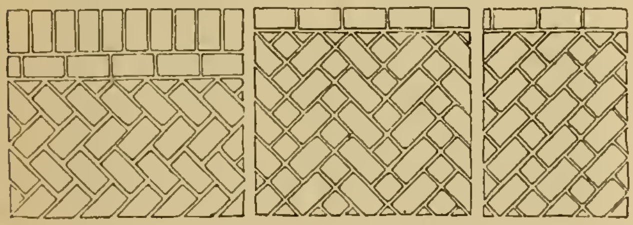
A good pattern for corridors.



Two combinations suggesting plaids.

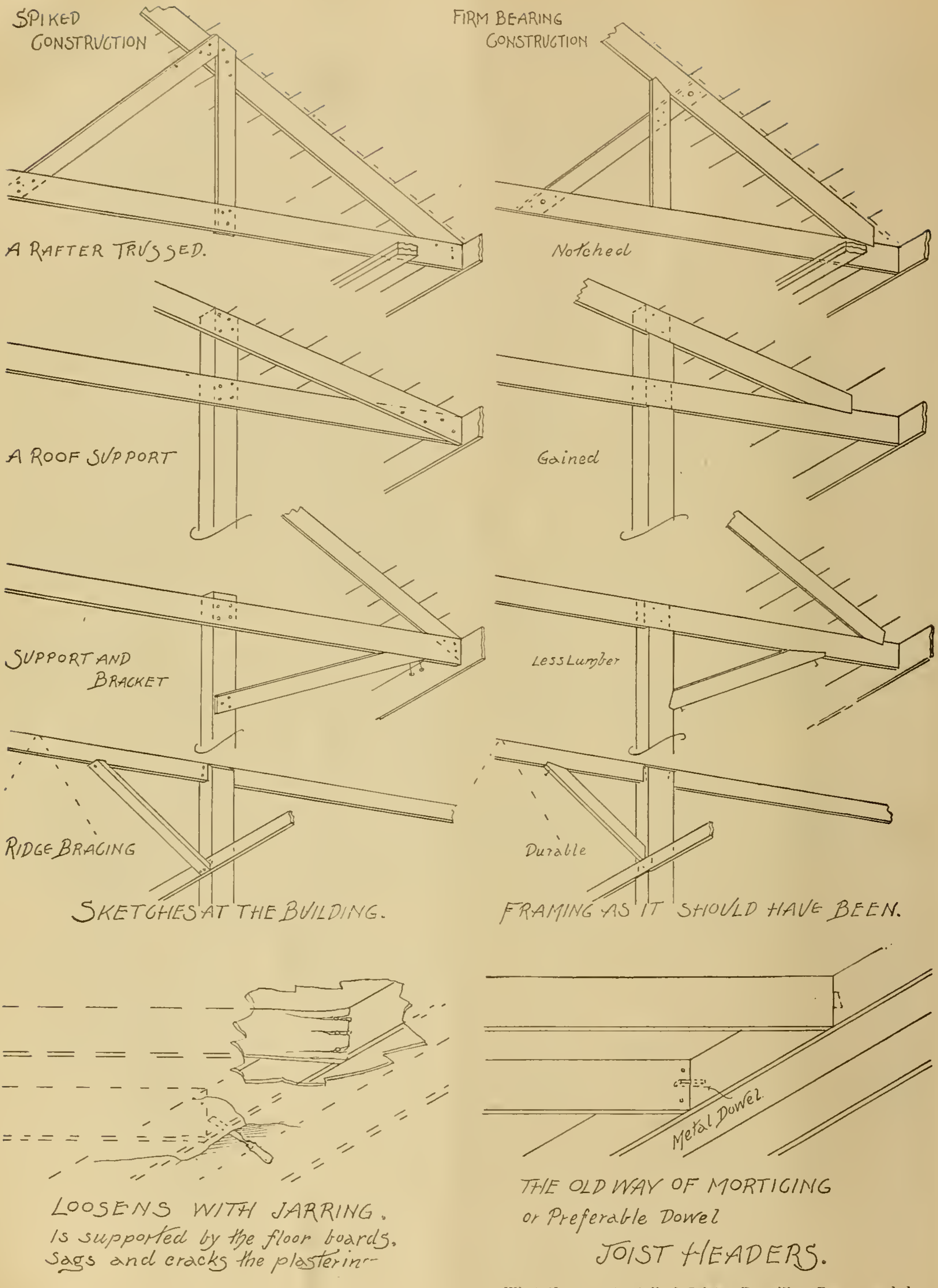


A simple device for a panel or a floor for a large room.



Varieties of "herringbone."

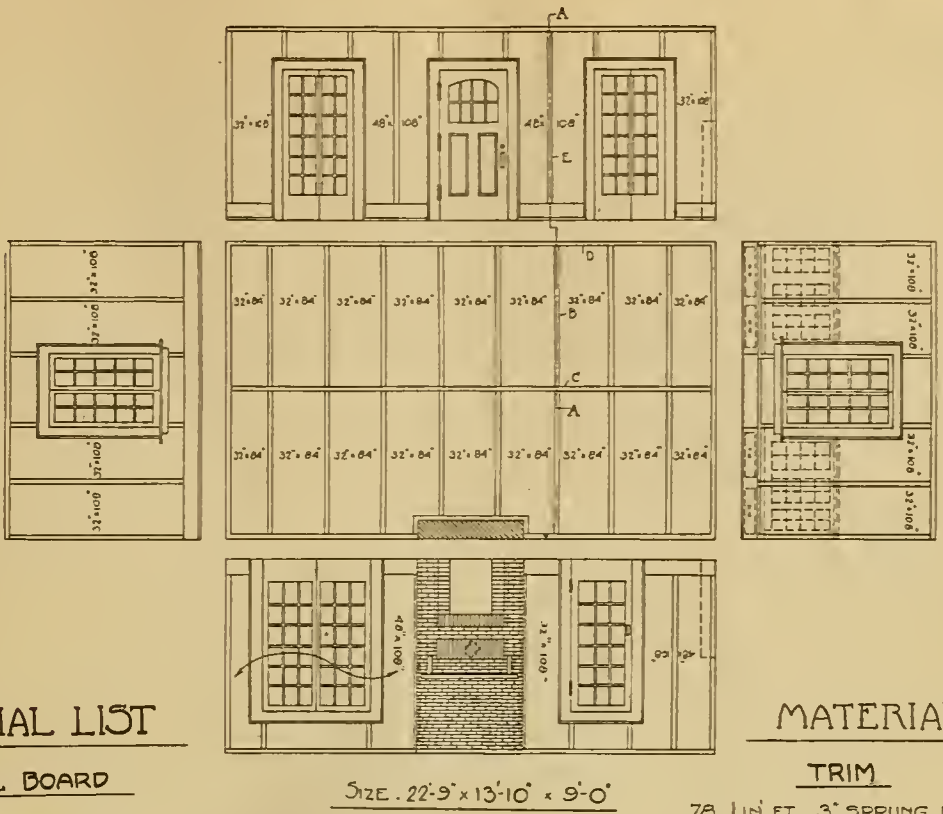
SUGGESTIVE PATTERNS FOR TILE FLOORS.



What Happens to Spiked Joists; Dowelling Recommended.

At the Left Is How Our Inspector Found the Work Being Done; at the Right the Better Way Is Shown.

GOOD AND BAD IN CARPENTRY WORK.



MATERIAL LIST

WALL BOARD

18 - 32" × 84"	- 336	SQ	FT
11 - 32" × 108"	- 264	"	"
1 - 48" × 96"	32	"	"
4 - 48" × 108"	144	"	"
1 - 48" × 120"	40	"	"
	816	"	"

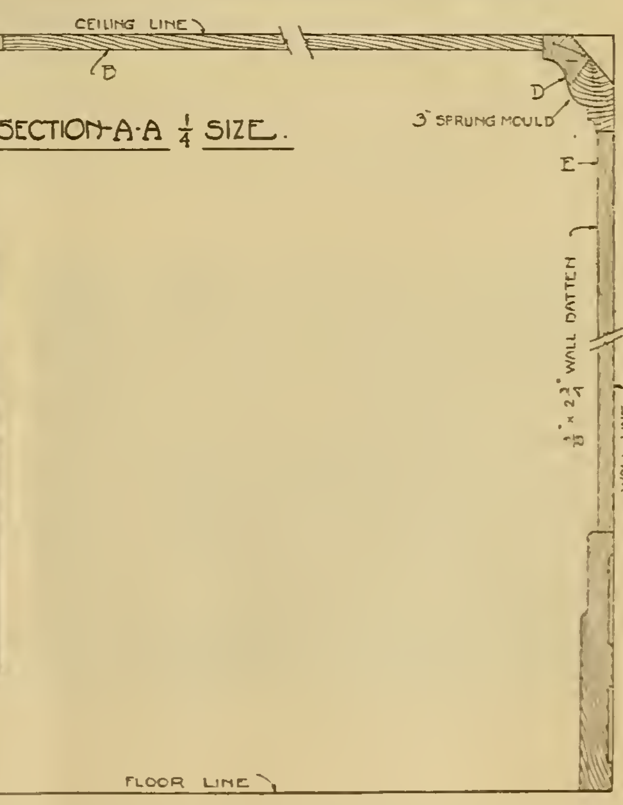
MATERIAL LIST

TRIM

78 - LIN FT - 3" SPRUNG MOULD

18 - Pcs	3/8" × 2 3/4" -	9'-0" Long	BATTENS
4 -	" "	12'-0" "	
8 -	" "	14'-0" "	

This List does not include door or window trim nor baseboard



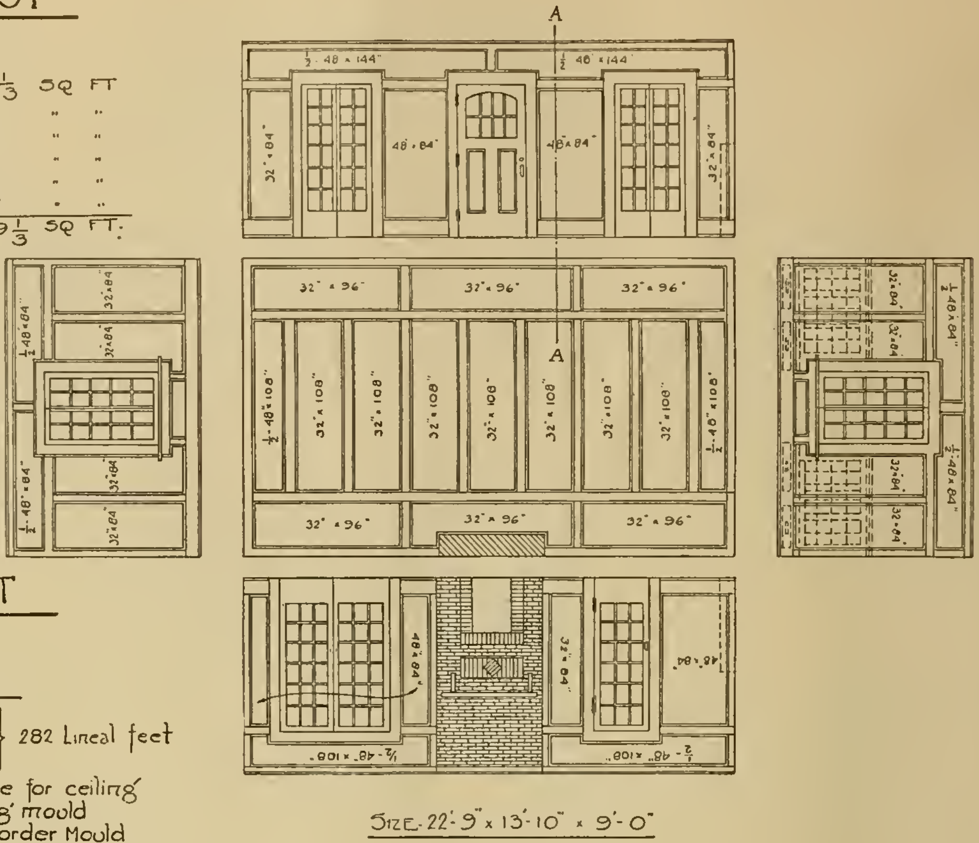
SECTION-A-A 1/4 SIZE.

How to Figure on Wallboard Work. Plan A. See This Same Room Finished According to Plan B or C (Pages 28 and 29). Then Compare the Material List and You Will See the Difference in Cost on the Same Job When Different Trim Is Used.

MATERIAL LIST

WALL BOARD

11 -	32" x 84" -	205 1/3	SQ FT
6 -	32" x 96"	128	" "
7 -	32" x 108"	168	" "
6 -	48" x 84"	168	" "
2	48" x 108"	72	" "
1 -	48" x 144"	48	" "
		789 1/3	SQ FT.



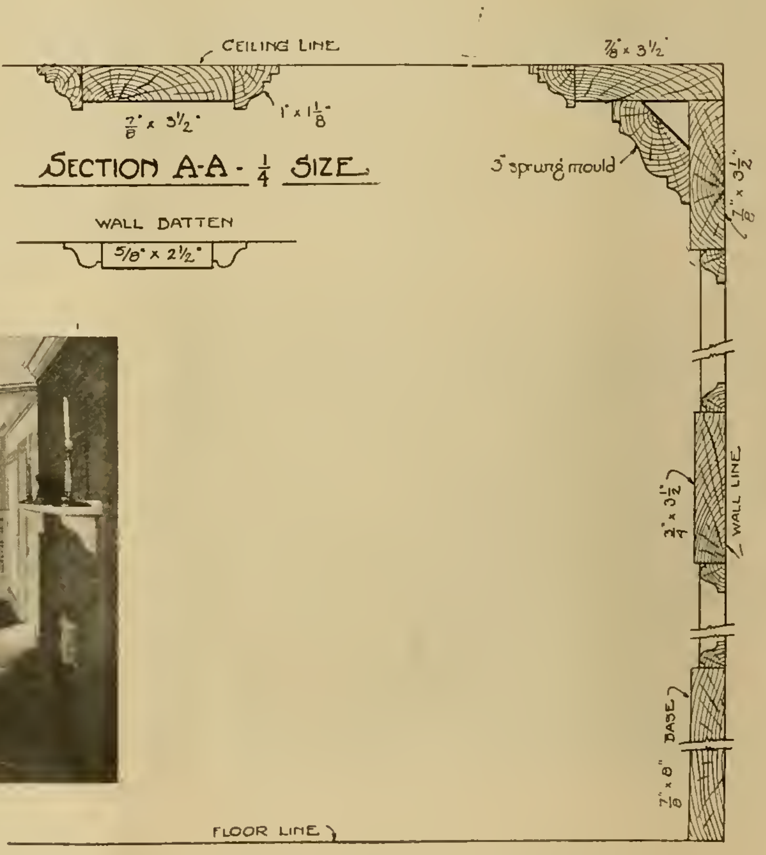
MATERIAL LIST

TRIM

WITH FLAT BEAMS

6 Pcs 7/8" x 3 1/2" - 9' }
12 " " " 12' } 282 Lineal feet
6 " " " 14' }
324 lin ft 1" x 1 1/8" Cove for ceiling
76 " " 3" sprung mould
40 " " 3/4" x 3 1/2" Border Mould
7 Pcs 5/8" x 2 1/2" - 16' long Wall batten.
444 lin ft 5/8" x 3/4" spec panel mould

All door & window trim and baseboard should be square edge material, no moulded edges

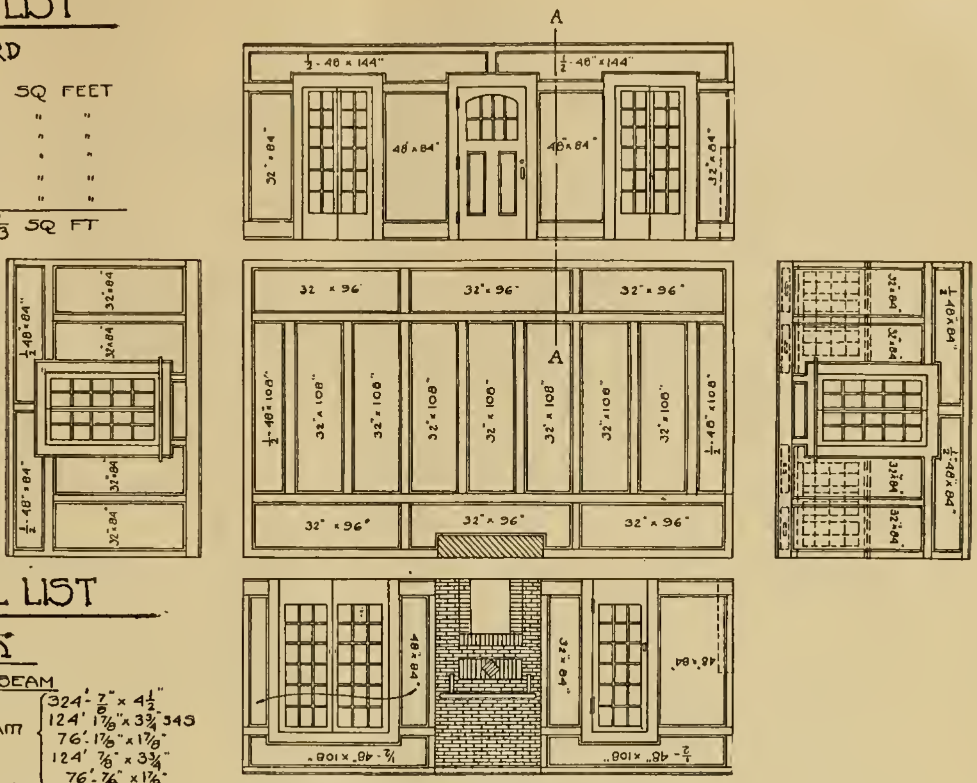


How to Figure on Wallboard Work. Plan B. This Is the Same as Shown in A and C (Pages 27 and 29). Note the Difference in Material Cost Thru the Use of Different Trim for the Same Job.

MATERIAL LIST

WALL BOARD

11-32" x 84"	205$\frac{1}{3}$	SQ FEET
6-32" x 96"	128	" "
7-32" x 108"	168	" "
6-48" x 84"	168	" "
2-48" x 108"	72	" "
1-48" x 144"	48	" "
	789$\frac{1}{3}$	SQ FT



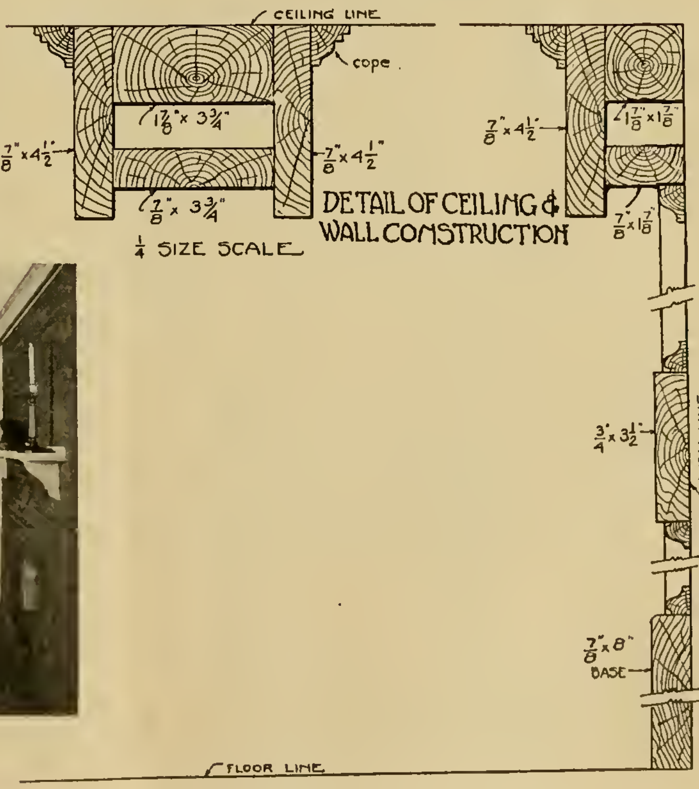
Size - 22'-9" x 13'-10" x 9'-0"

MATERIAL LIST

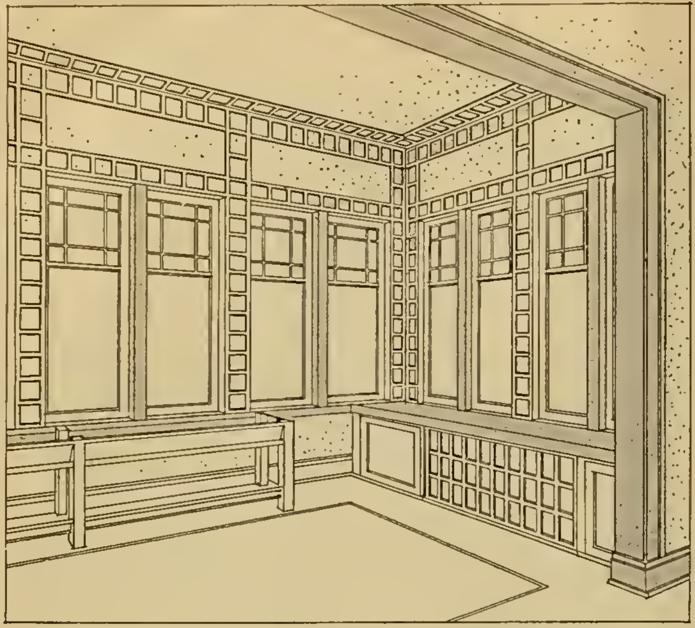
TRIM

WITH BOX BEAM

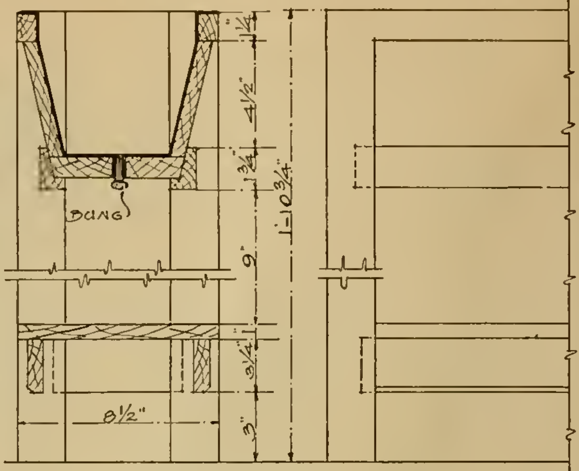
76 Lin ft Half-Beam
124 " " Full "
324' - 7/8" x 4½"
124' 1⅞" x 3¾" S4S
76' - 1⅞" x 1⅞"
124' ⅞" x 3¾"
76' - ⅞" x 1⅞"
40 Lin ft ¾" x 3½" Border Mould
4 - ⅝" x 2½" x 12' Wall Batten
2 " " " " 14'
7 " " " " 16'
444 lin' ft ⅝" x ¾" spec' Panel Mould



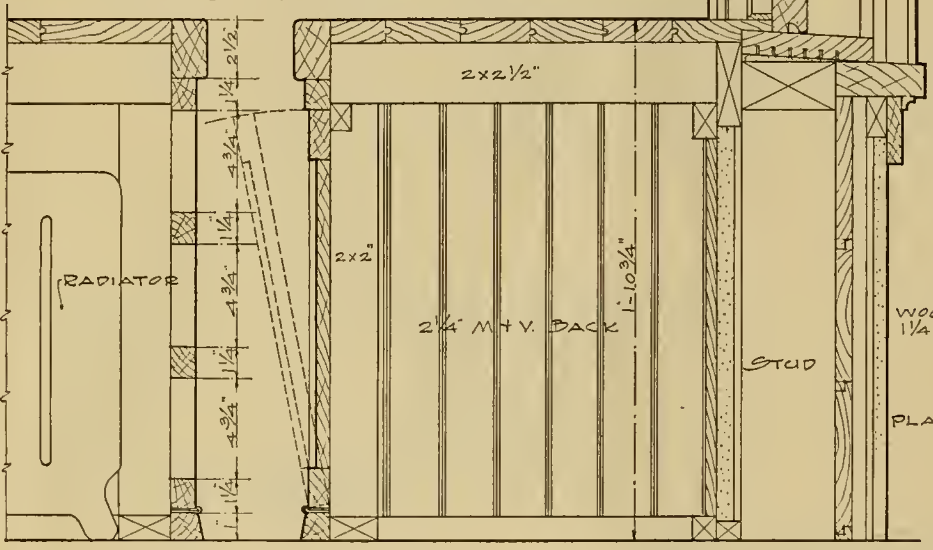
How to Figure on Wallboard Work. Plan C. This Is a Further Illustration of the Room Shown in Plan A and B (Pages 27 and 28), But with a More Elaborate Panel Scheme. Note the Difference in the Material List on Trim as a Result.



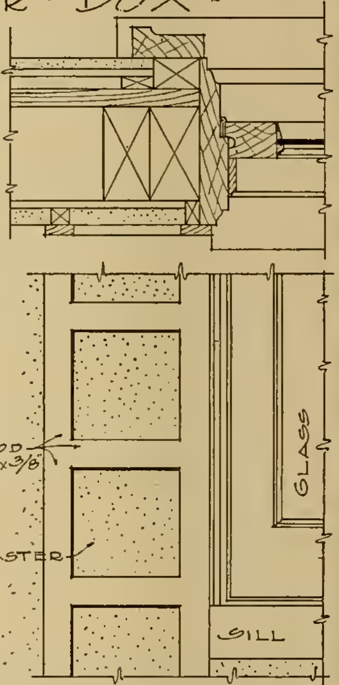
· PERSPECTIVE ·



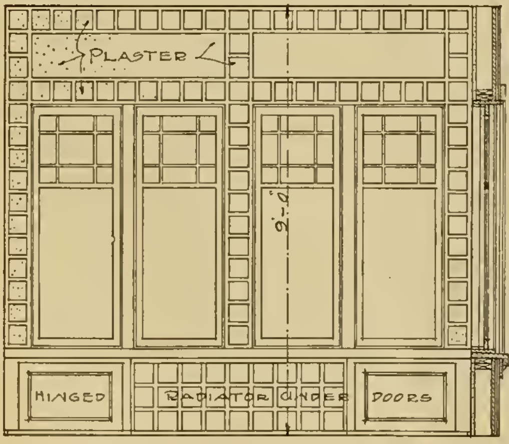
· DETAIL · OF ·
· FLOWER · BOX ·



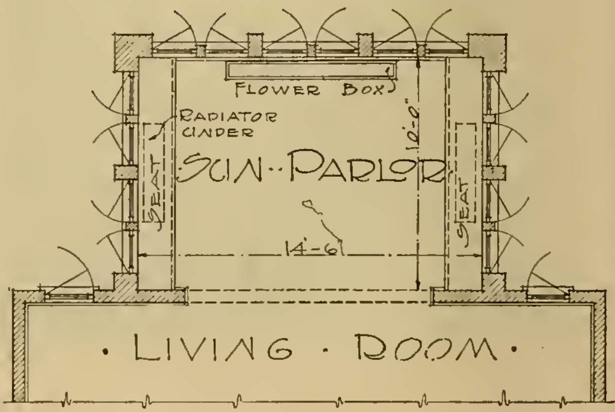
· SECTION · THRU · SEAT ·
SCALE 1½"=1'-0"



· DETAIL · OF ·
· WINDOW ·



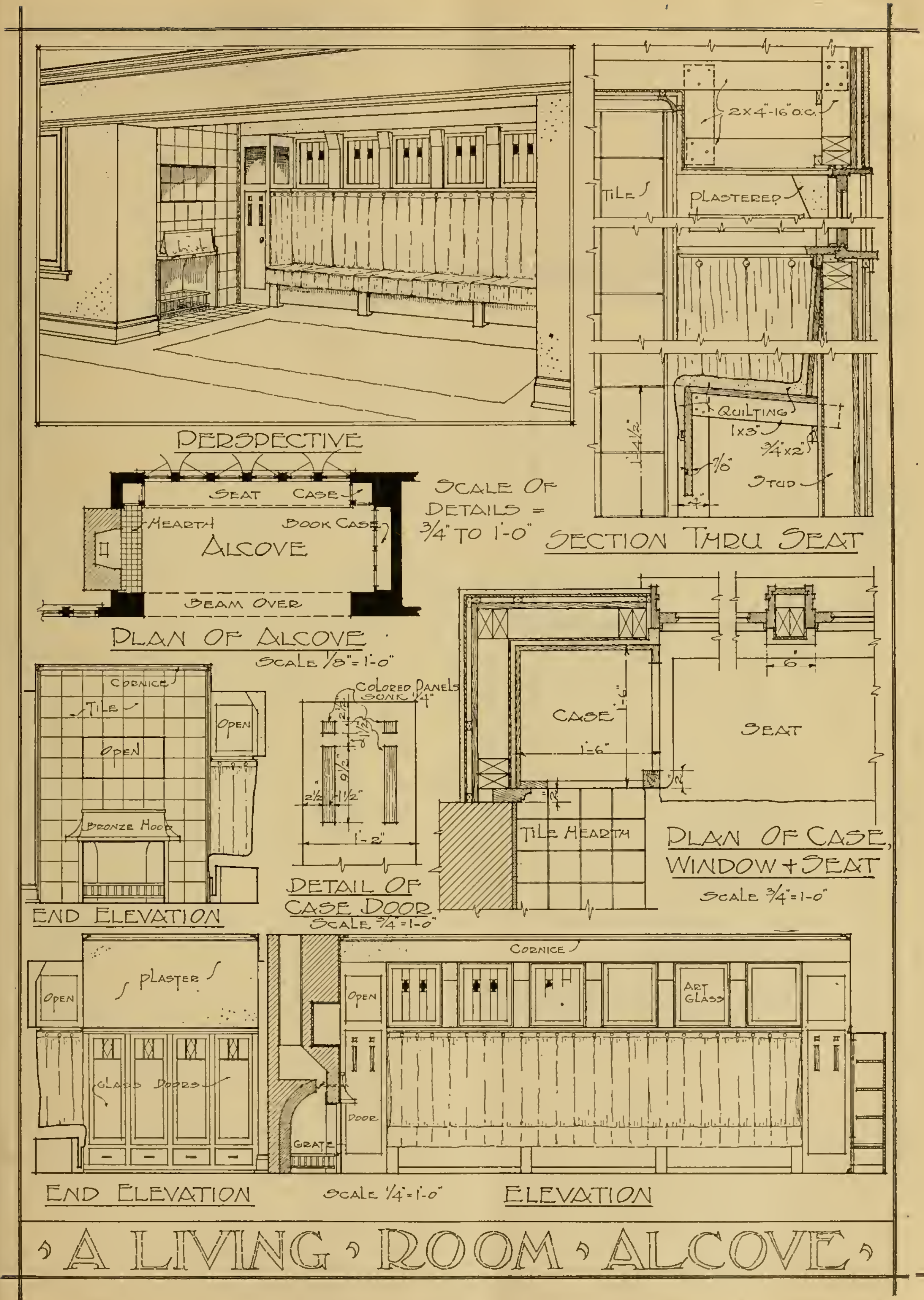
· END · ELEVATION ·
SCALE ¼"=1'-0"



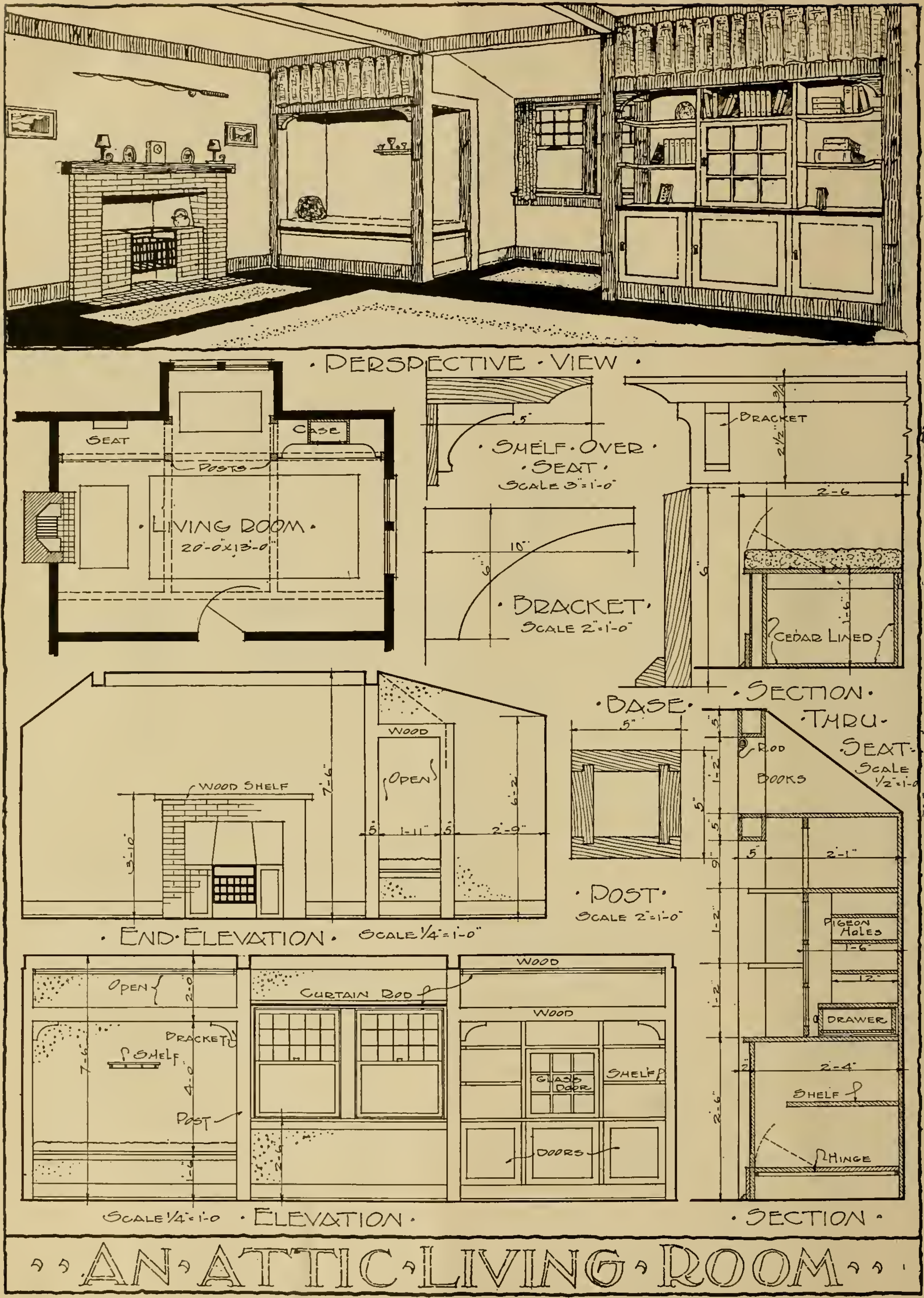
· PLAN · SCALE ⅛"=1'-0"

HOUSE·INTERIORS·A·SUN·PORCH

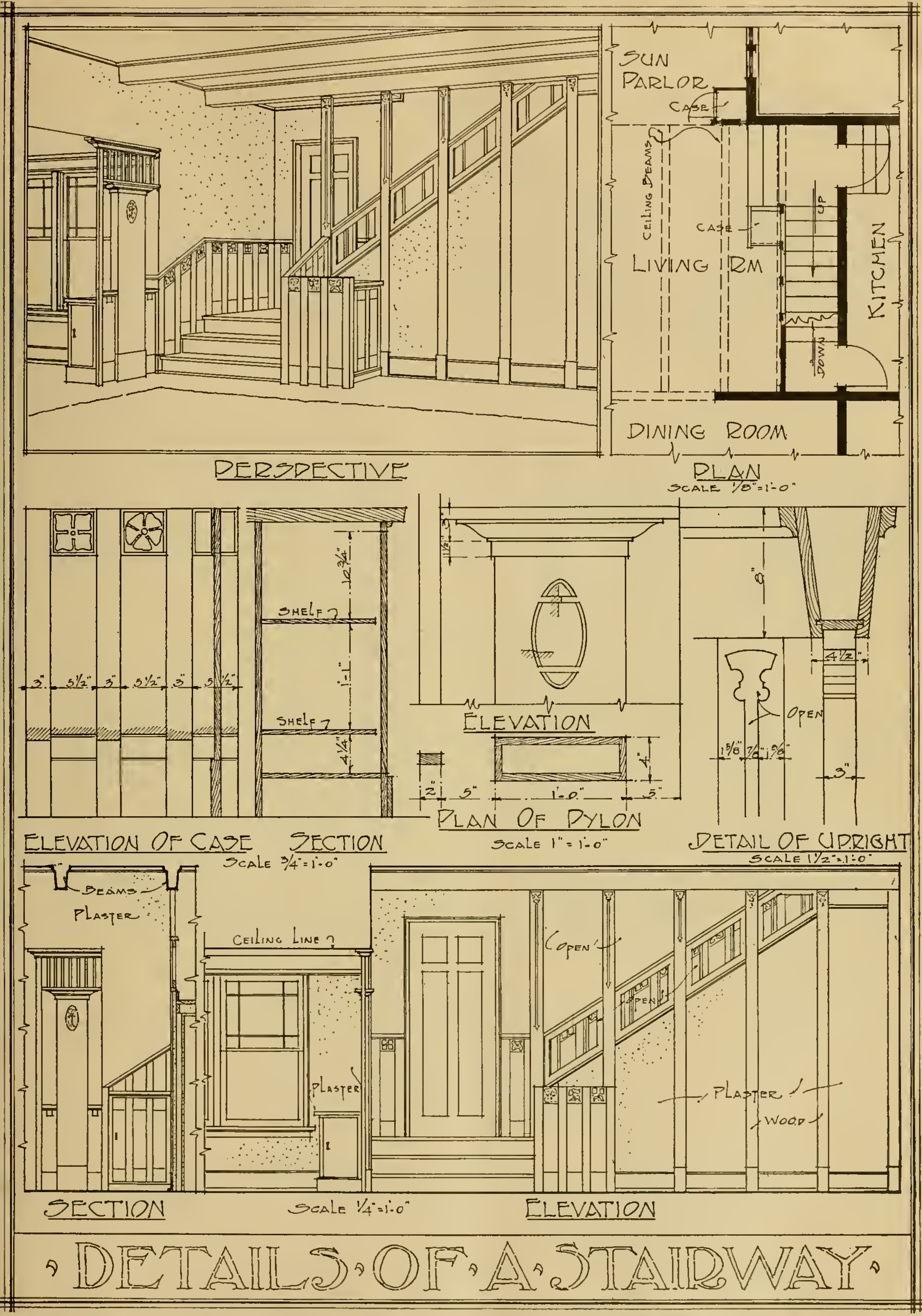
Perspective Sketch, Elevation, Plan and Construction Details of a Sun Parlor Finished in Lattice Style Suggesting the Outdoors.



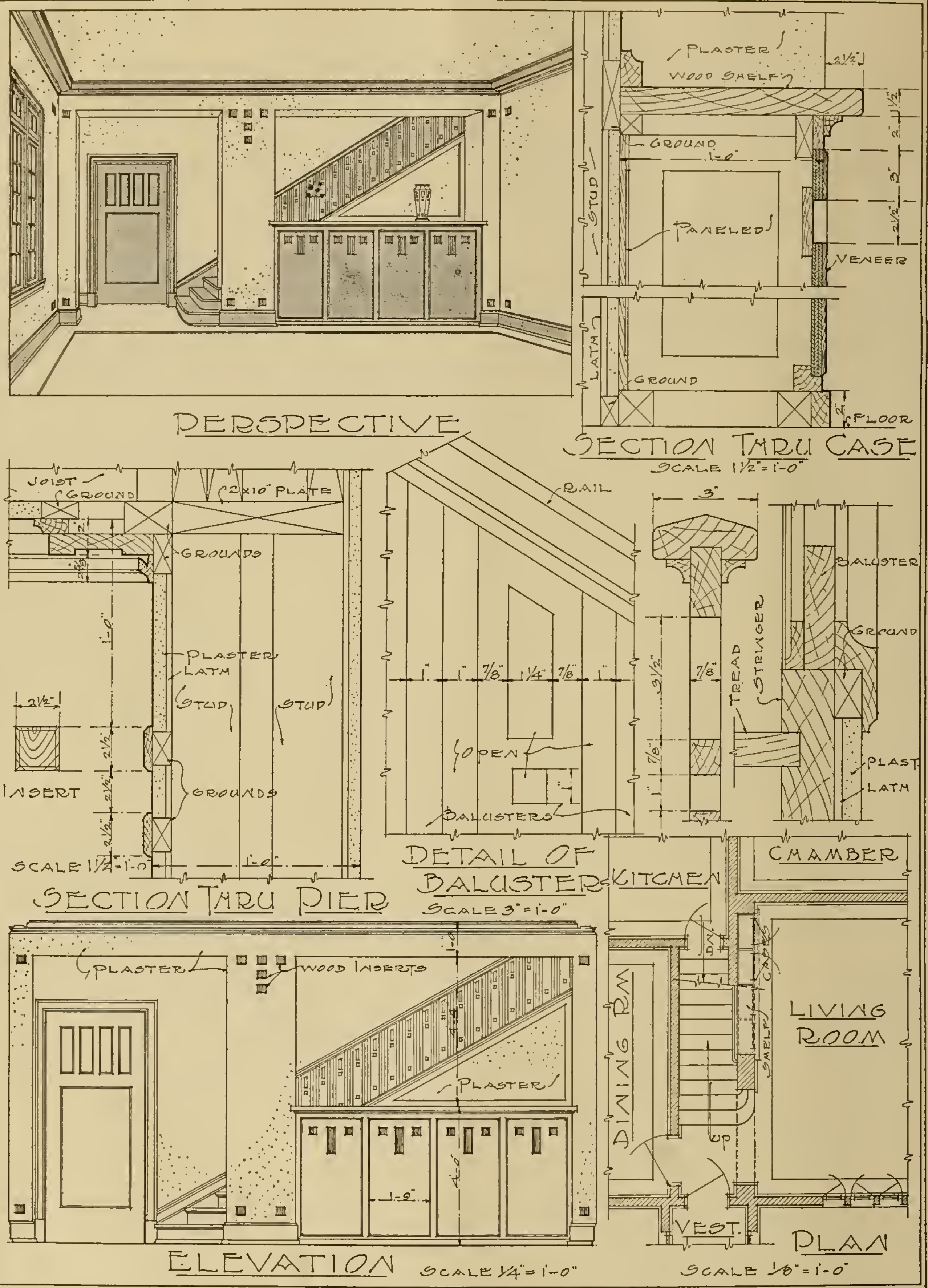
Architect's Sketch Showing Details of Living Room Alcove, Including Comfortable Upholstered Seat with Art Glass Windows Above, Bookcases and Fireplace in Tile with Bronze Hood.



Sketch, Plan, Elevations and Construction Details of an Attic Living Room.

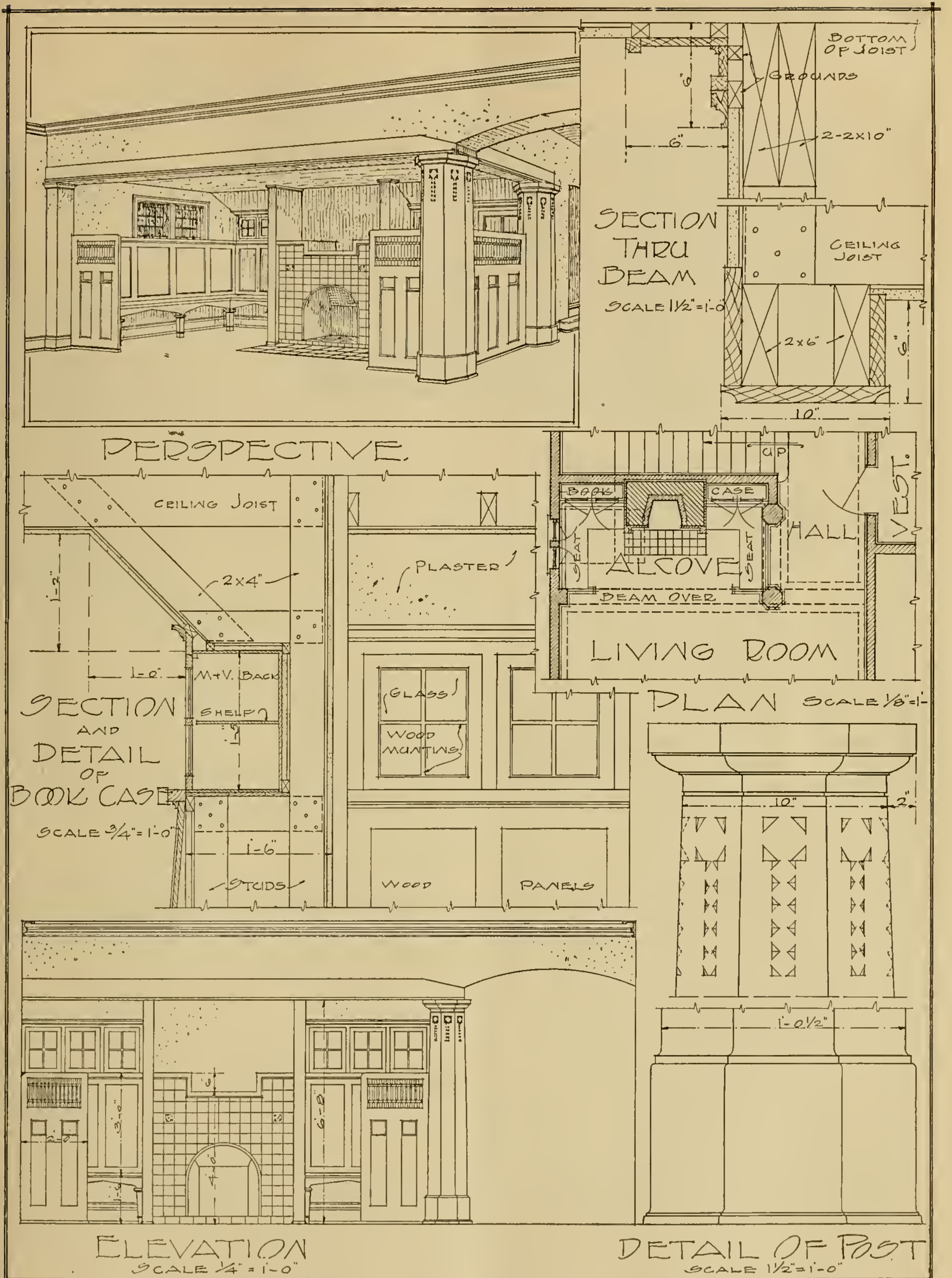


Perspective Sketch, Floor Plan and Details of Open Stairway Going Up Out of a Living Room. A Design of Considerable Originality.



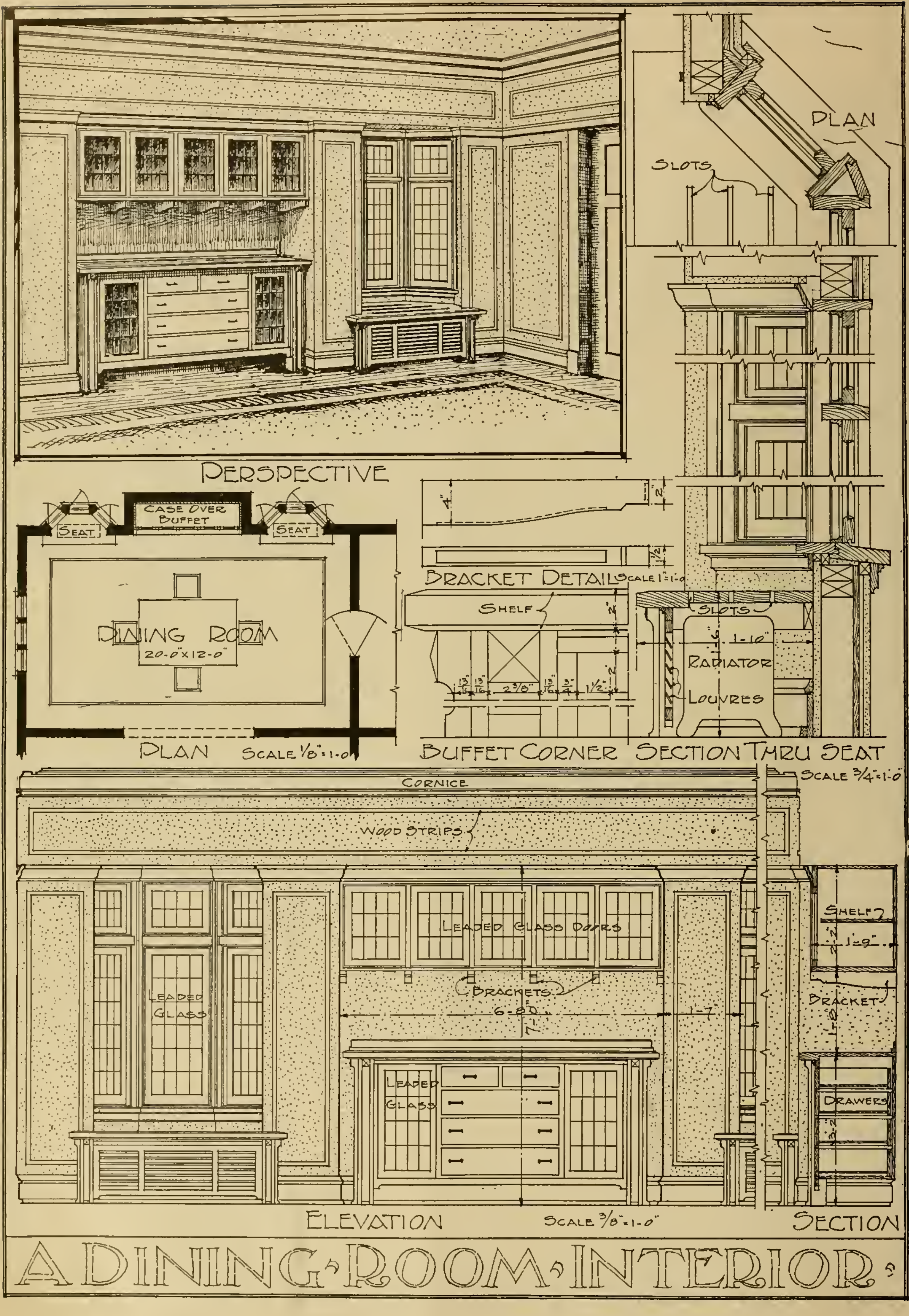
·A·STAIRWAY·WITH·BOOK·CASE·

Perspective Sketch, Elevation, Plan and Scale Details of Semi-Open Stair Handled in the Modern Straight Line Style.

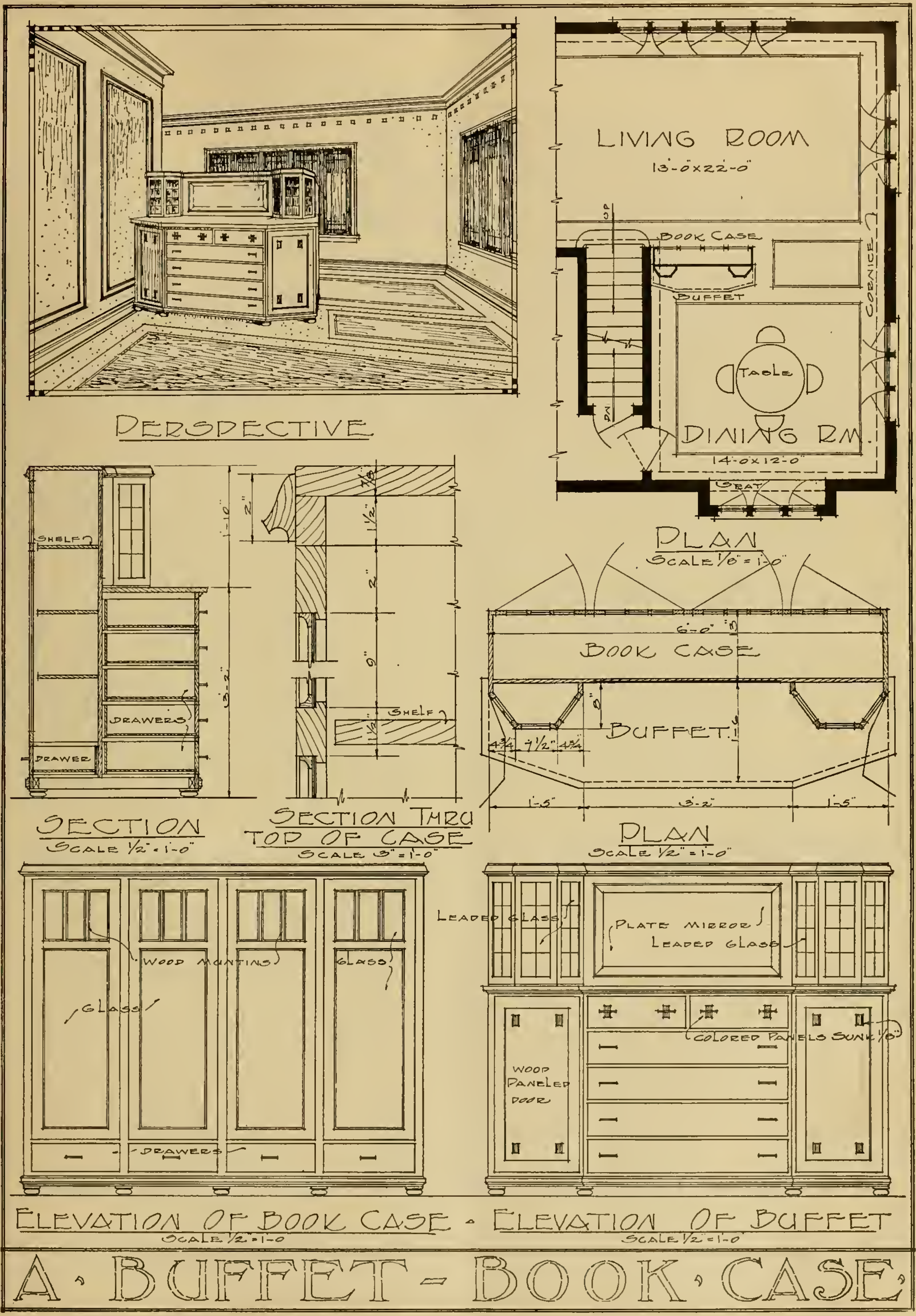


A FIREPLACE ALCOVE

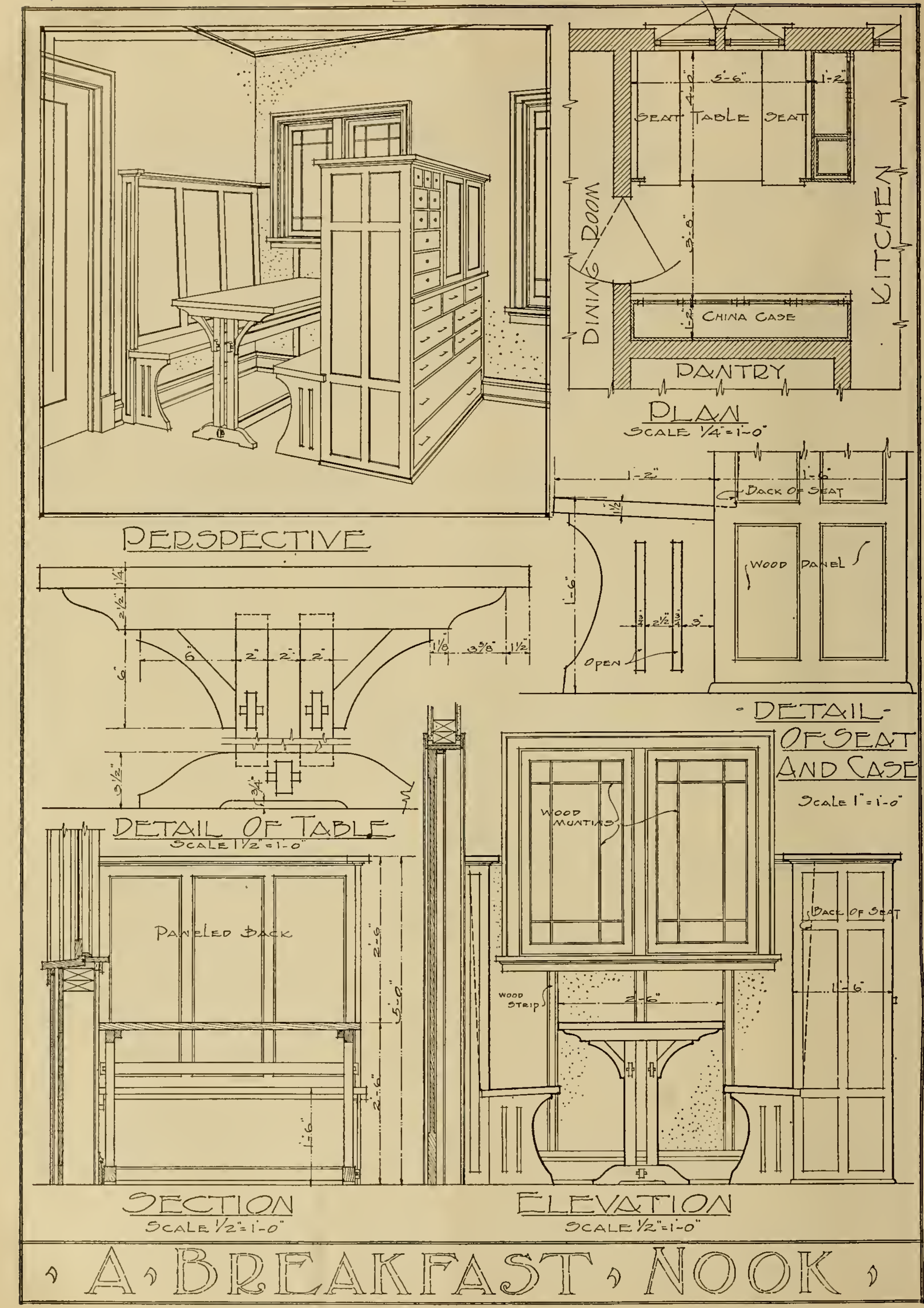
Sketch, Elevation, Plan and Details of Fireplace Alcove Suitable for Large Elaborate Living Room.



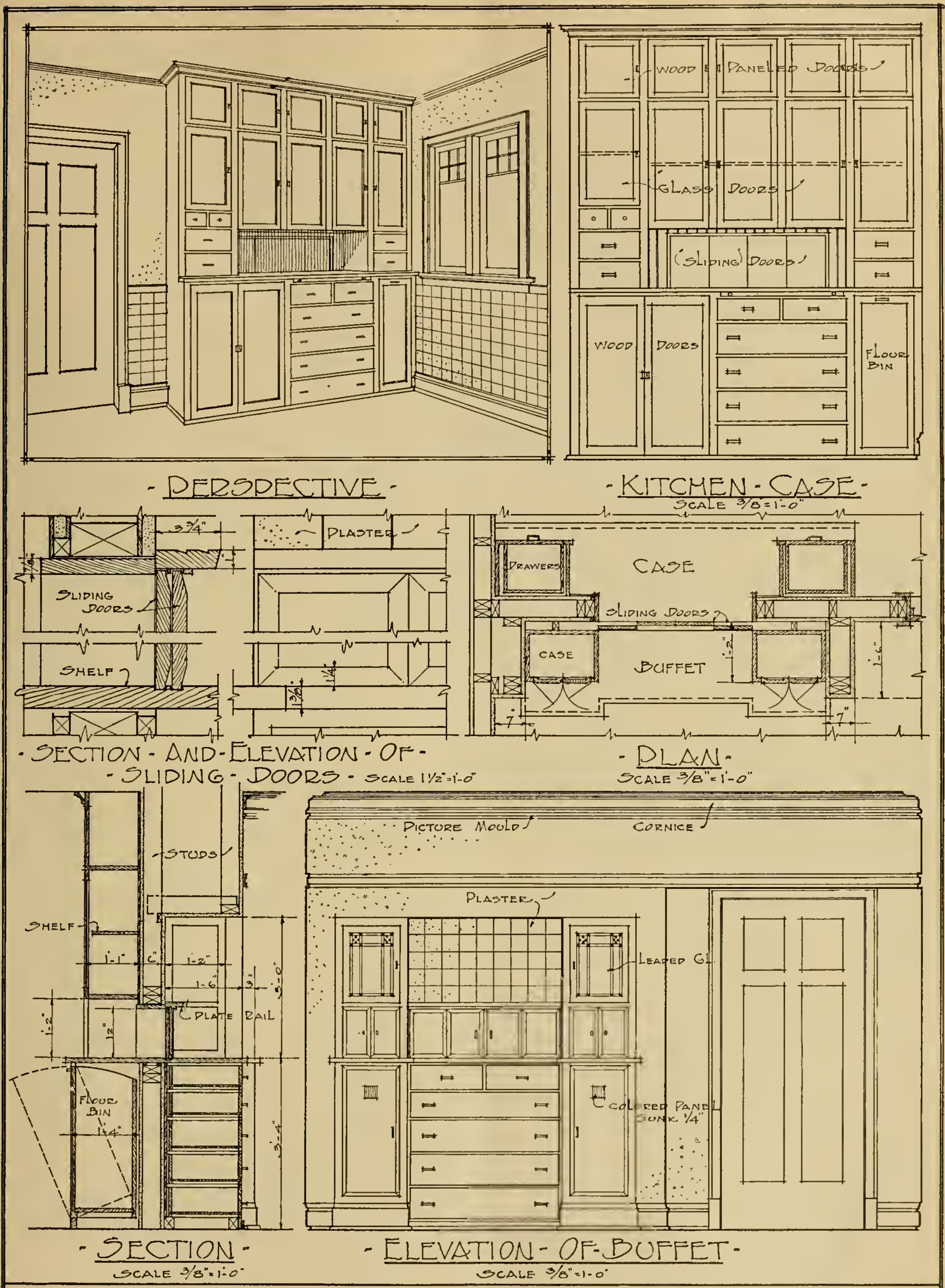
Sketch, Floor Plans, Elevations and Details of Interesting Dining Room Interior.



Perspective Sketch, Floor Plan, Elevation and Details of a Combined Buffet and Book Case, Arranged to Form a Half Partition Between a Dining Room and a Living Room.

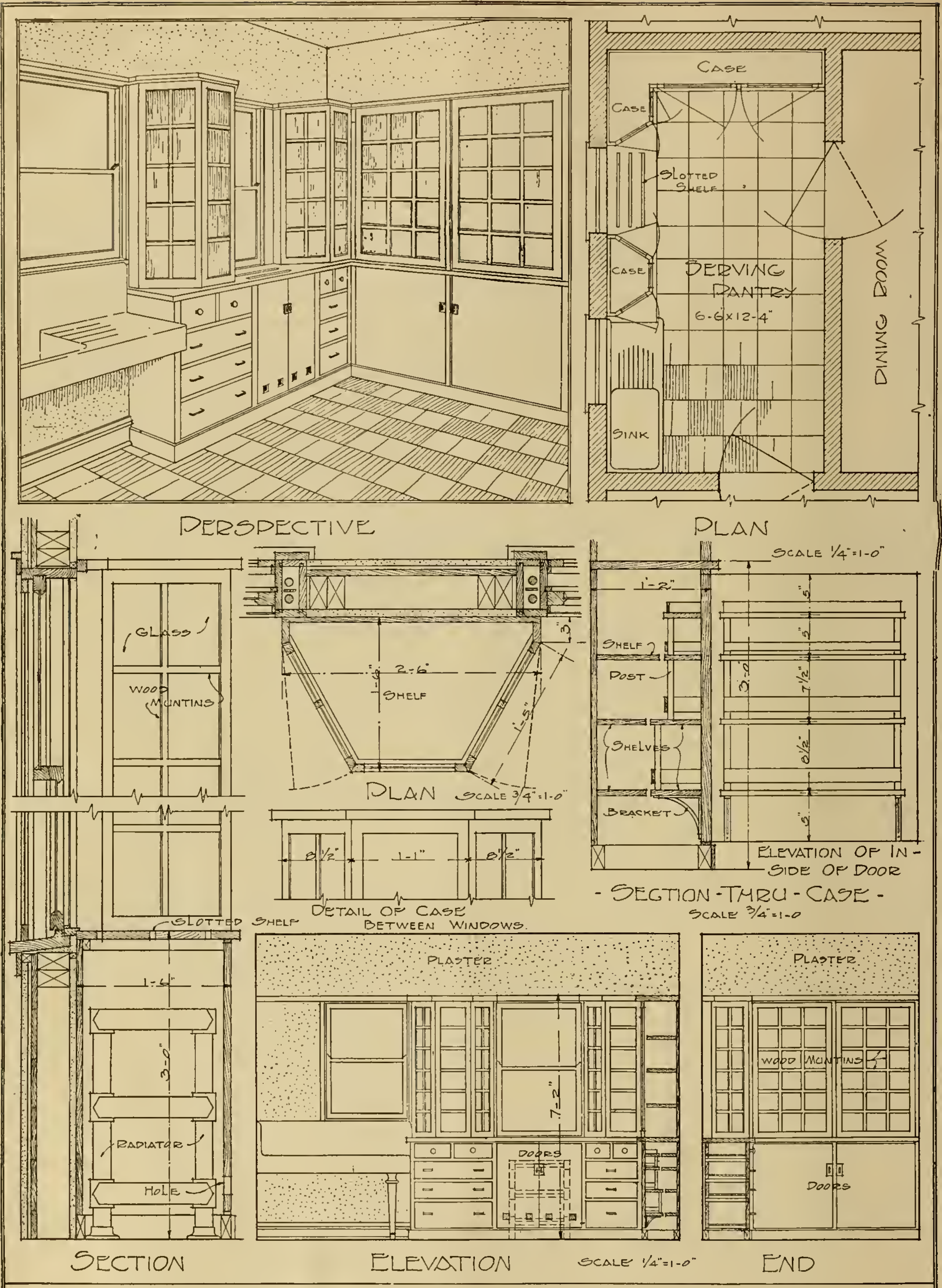


Architect's Drawing Giving Perspective Sketch, Floor Plan and Details of a Very Interesting Breakfast Alcove Formed by Kitchen Cabinet.



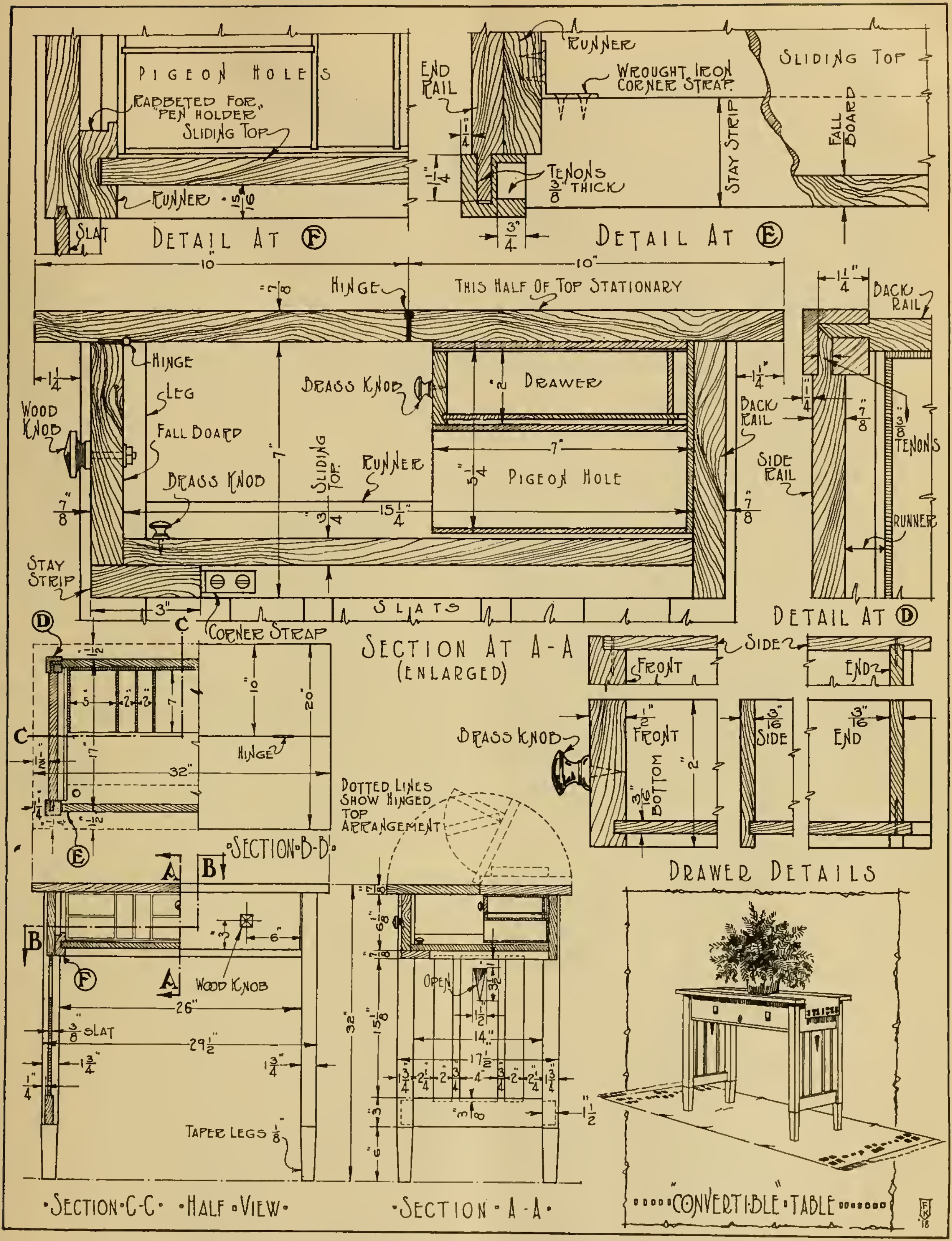
A KITCHEN CASE AND BUFFET

Details of a Commodious Cabinet and Sideboard to Be Built Into the Wall Between the Dining Room and the Kitchen.

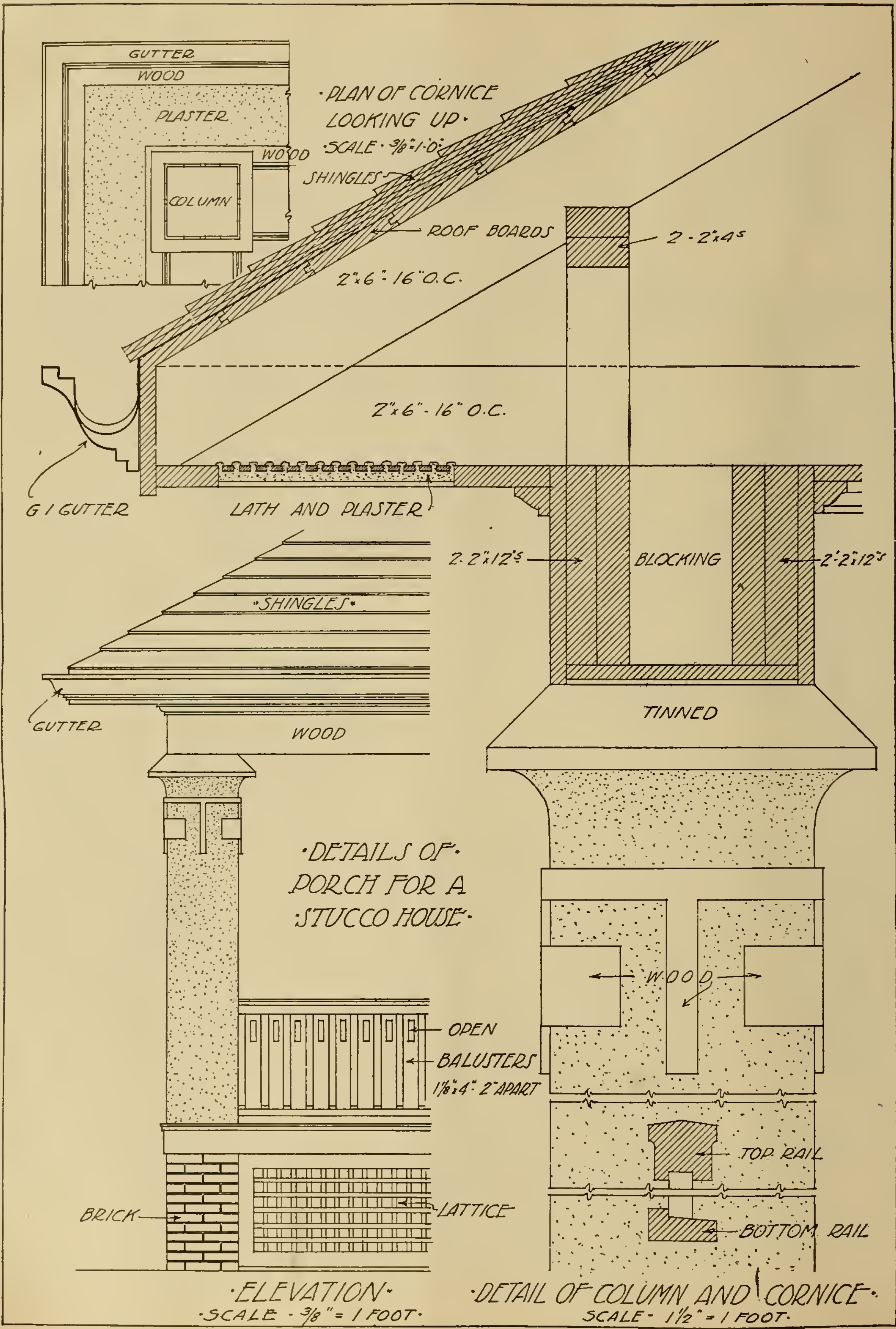


"A SERVING PANTRY"

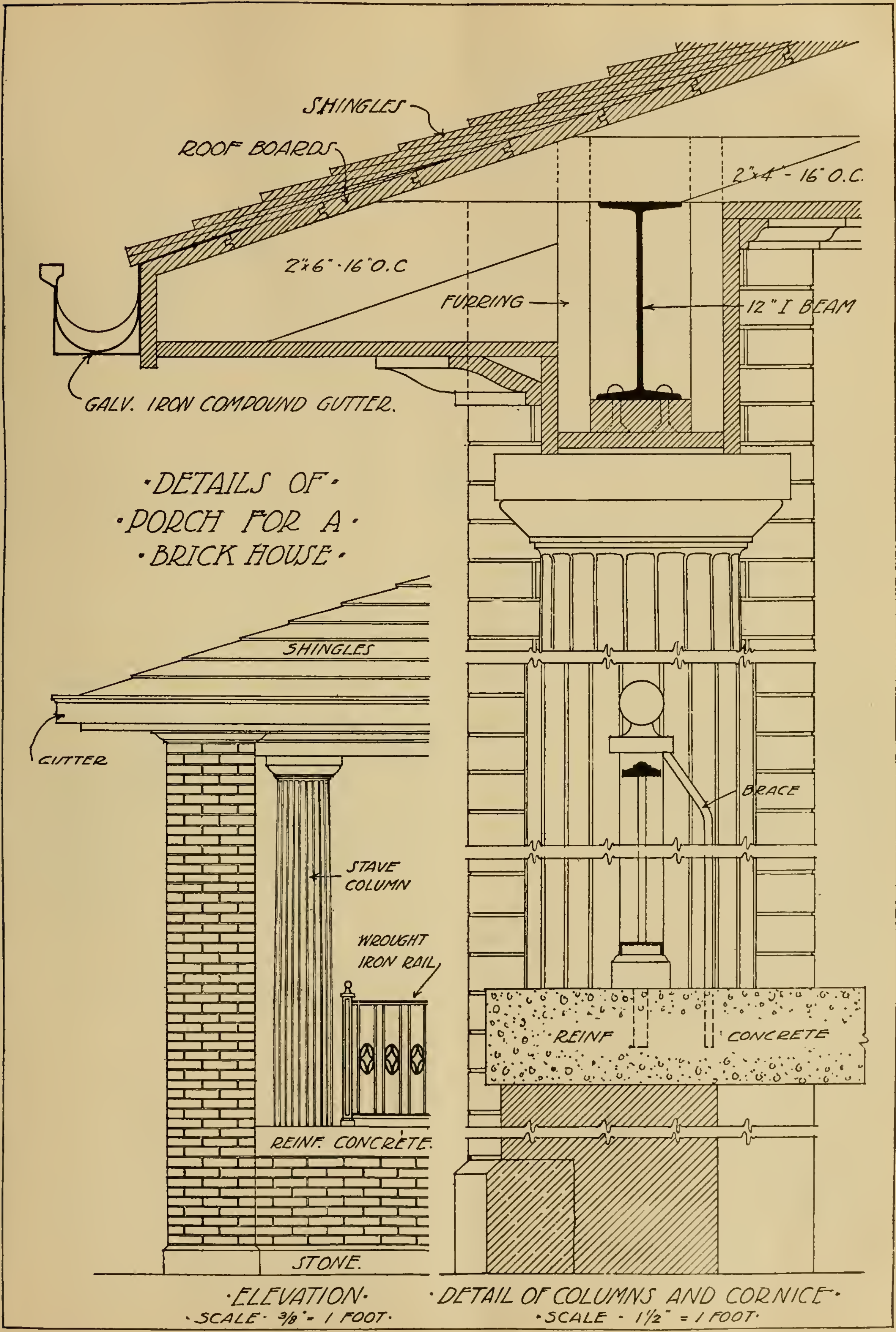
Perspective Sketch, Plan and Details of a Well Equipped Serving Pantry.



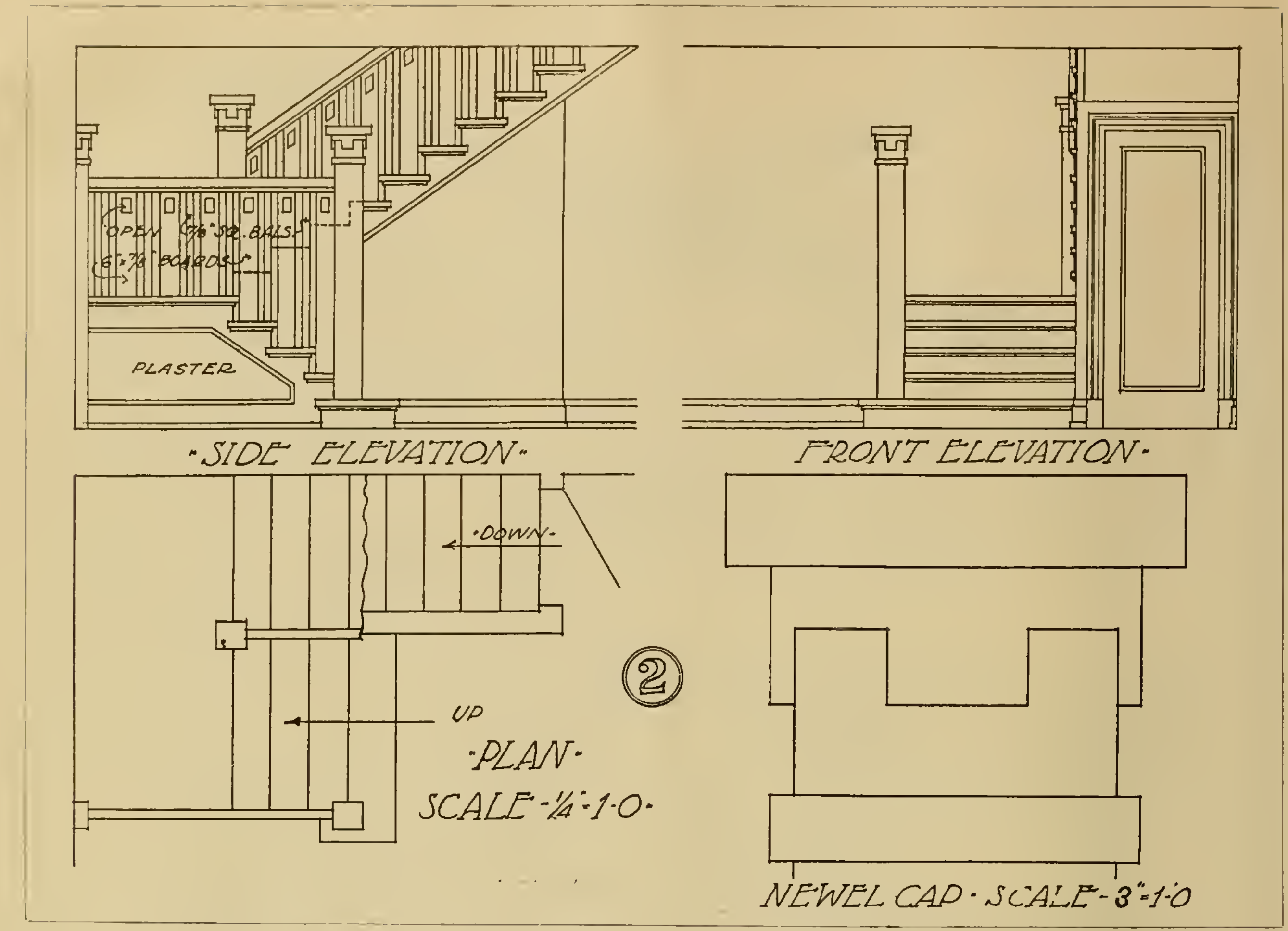
Perspective Sketch and Working Drawing Showing Construction of an Ingenious Table Desk.

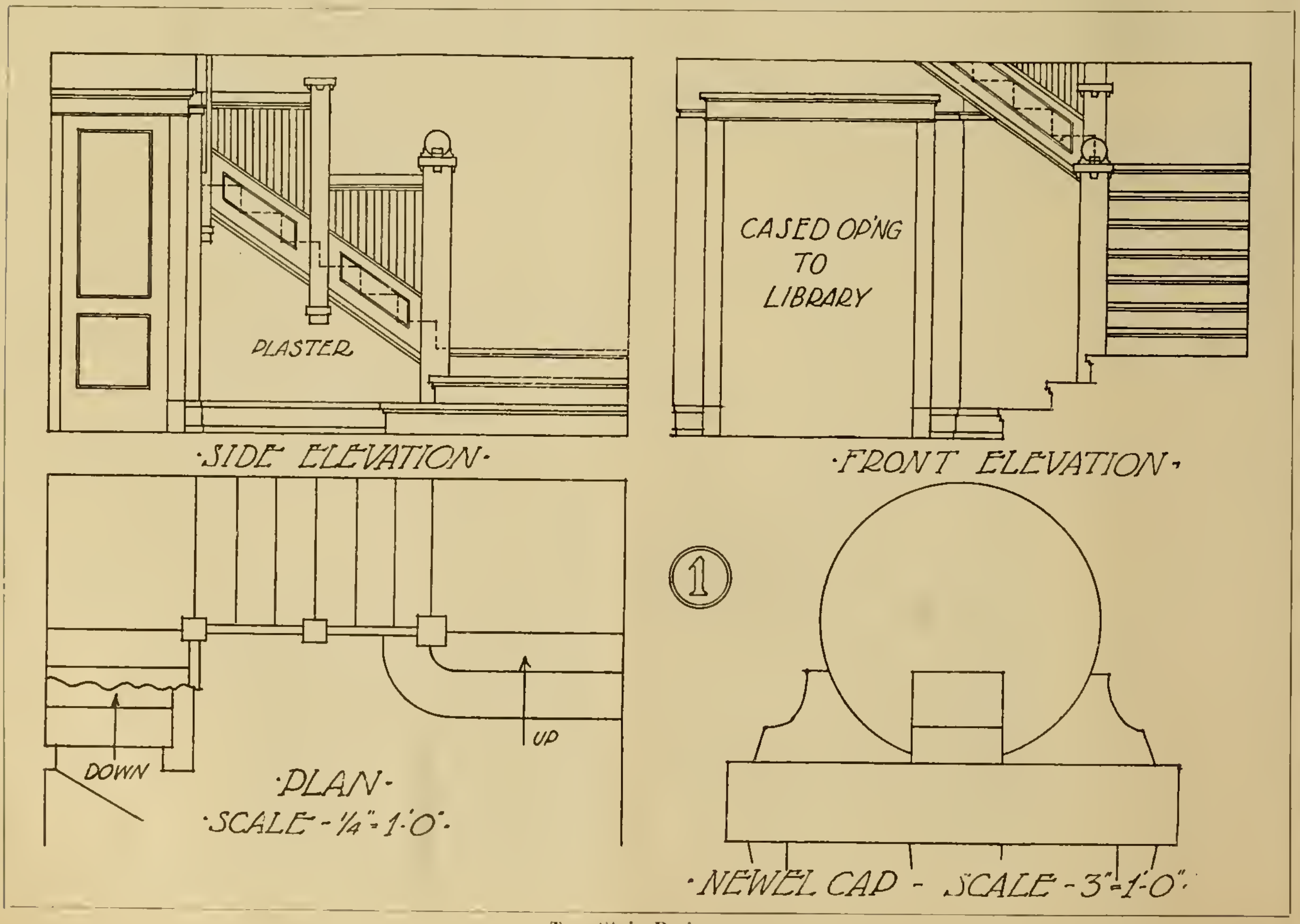


Design and Details of Modern Style Stucco Porch.

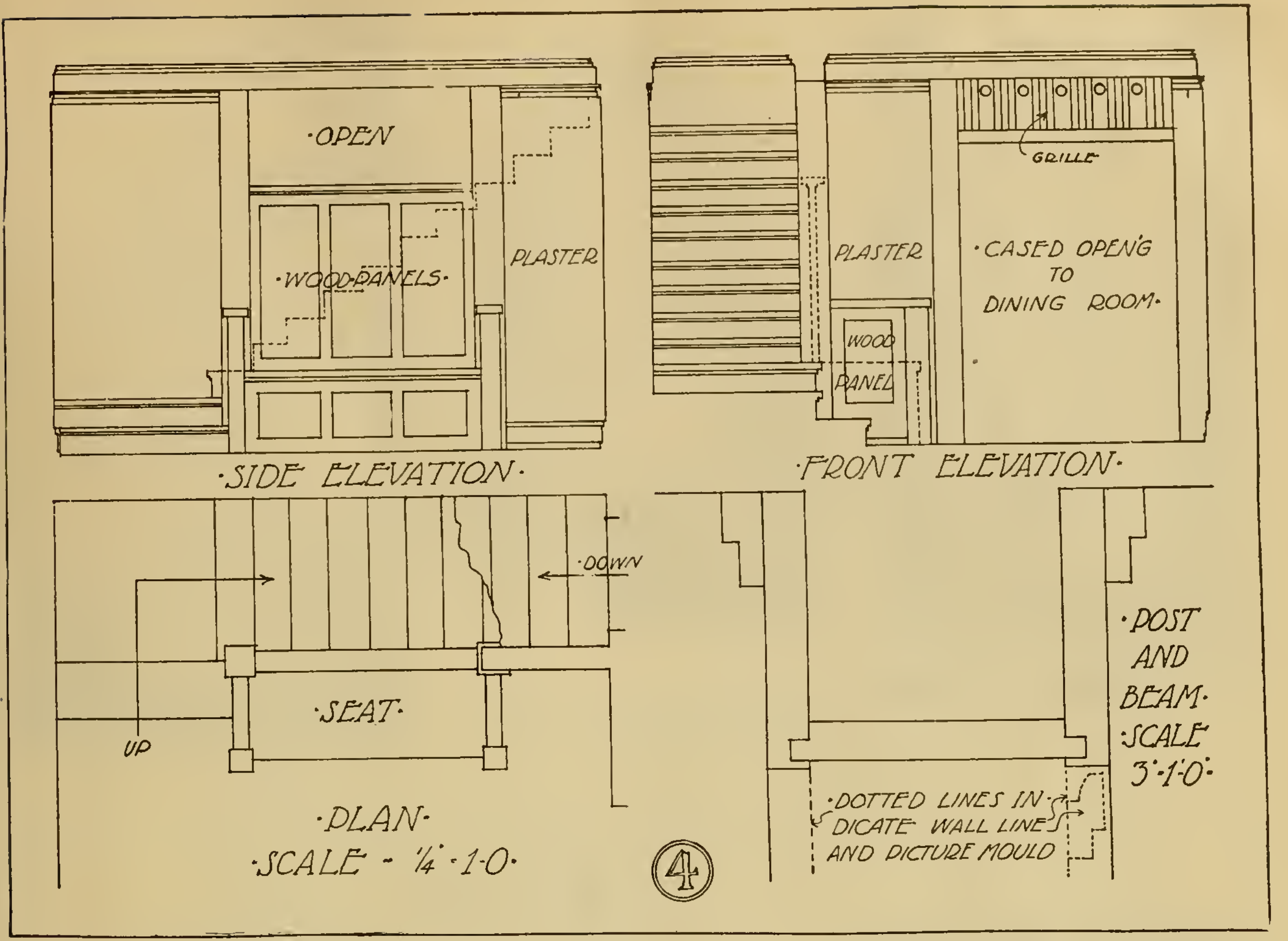


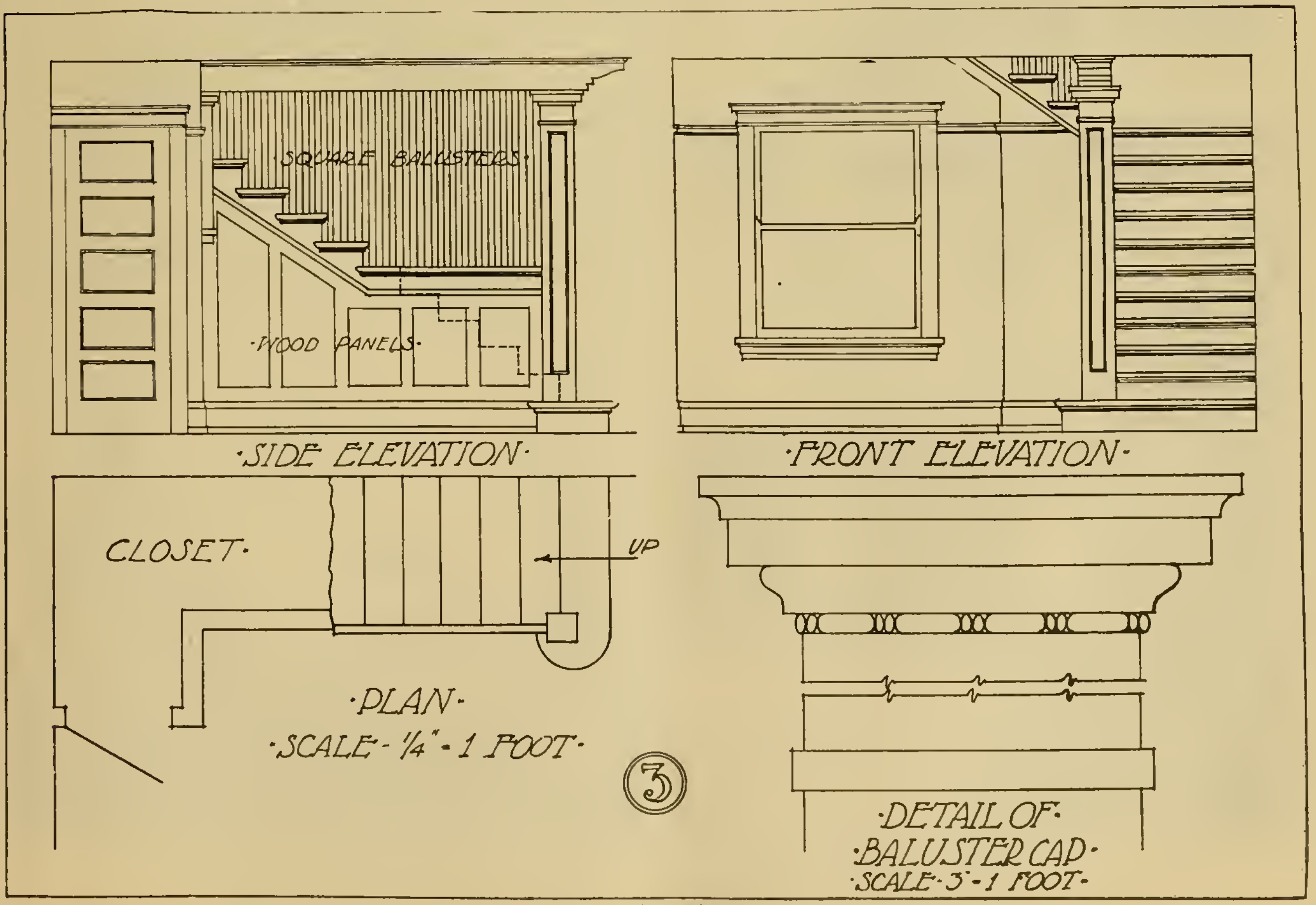
Colonial Porch With Both Brick and Stave Columns.



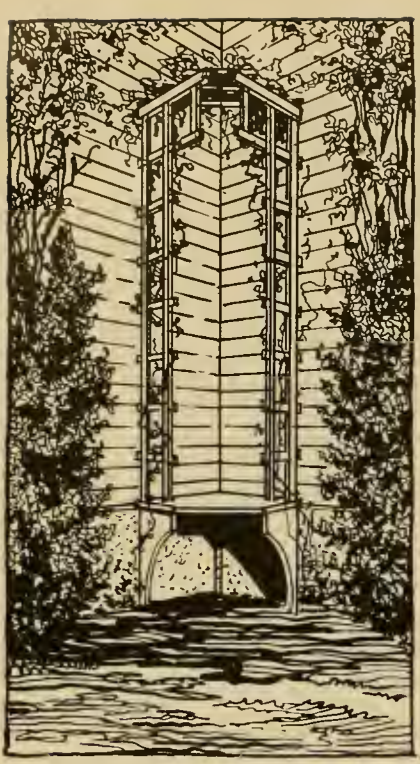


Two Stair Designs.

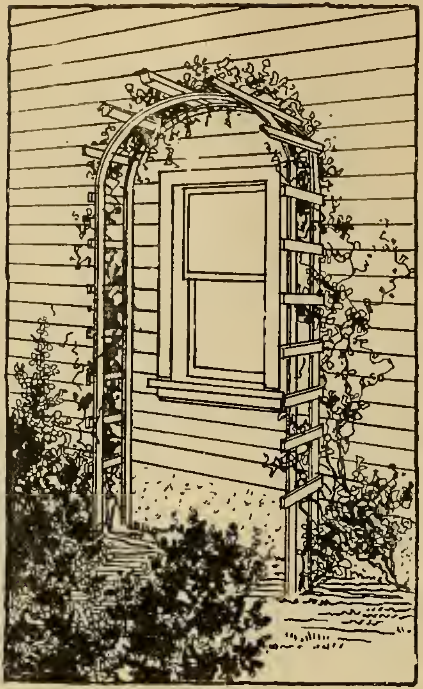




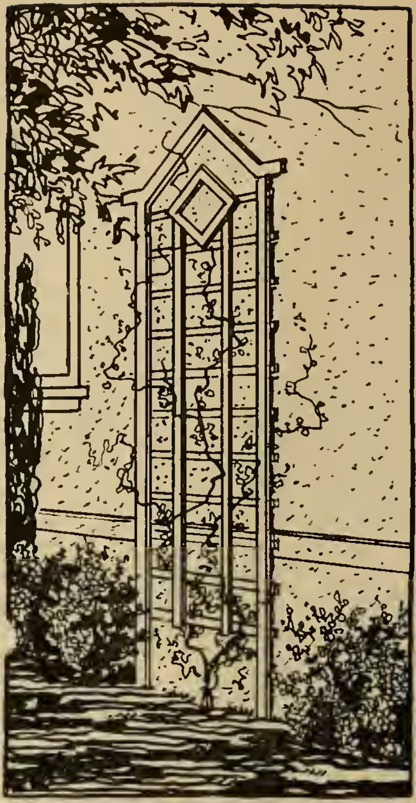
Two Stair Designs.



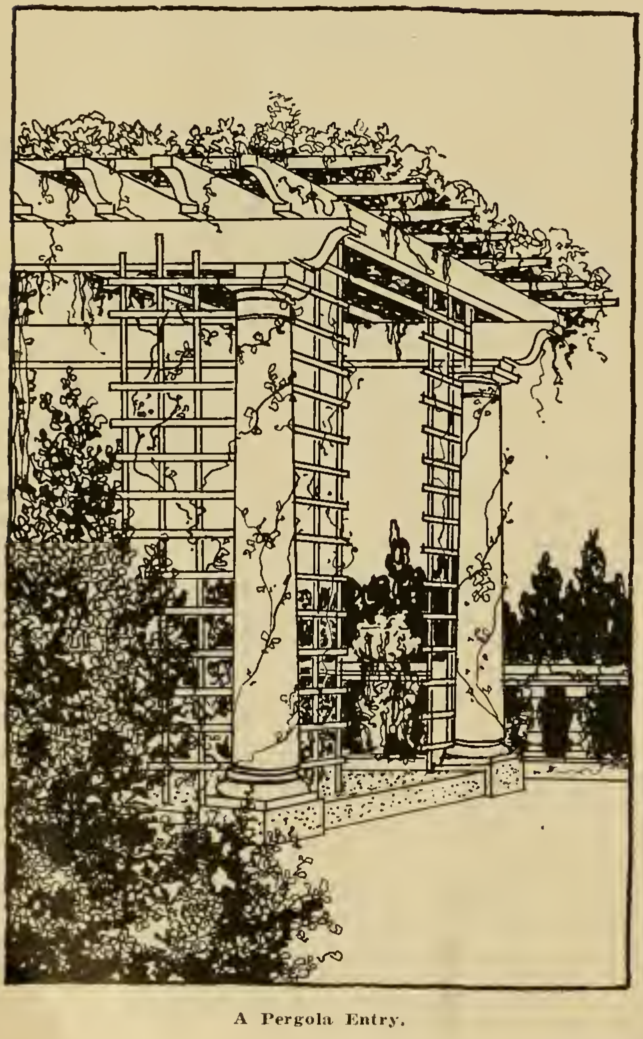
Corner Trellis and Flower Pot Shelf.



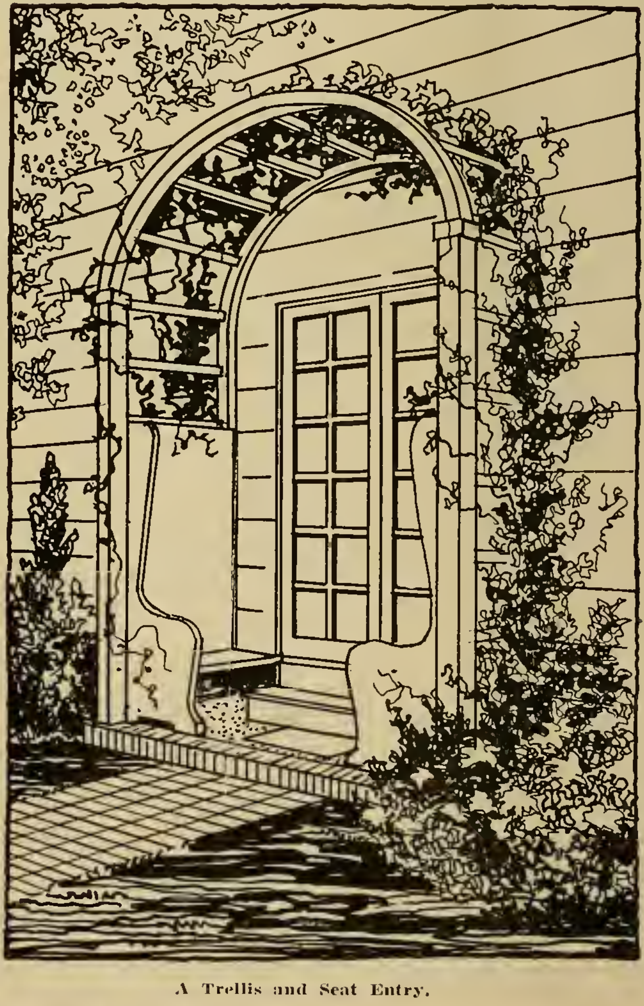
Arch Trellis Over a Window.



Lattice Ornament for Wall.

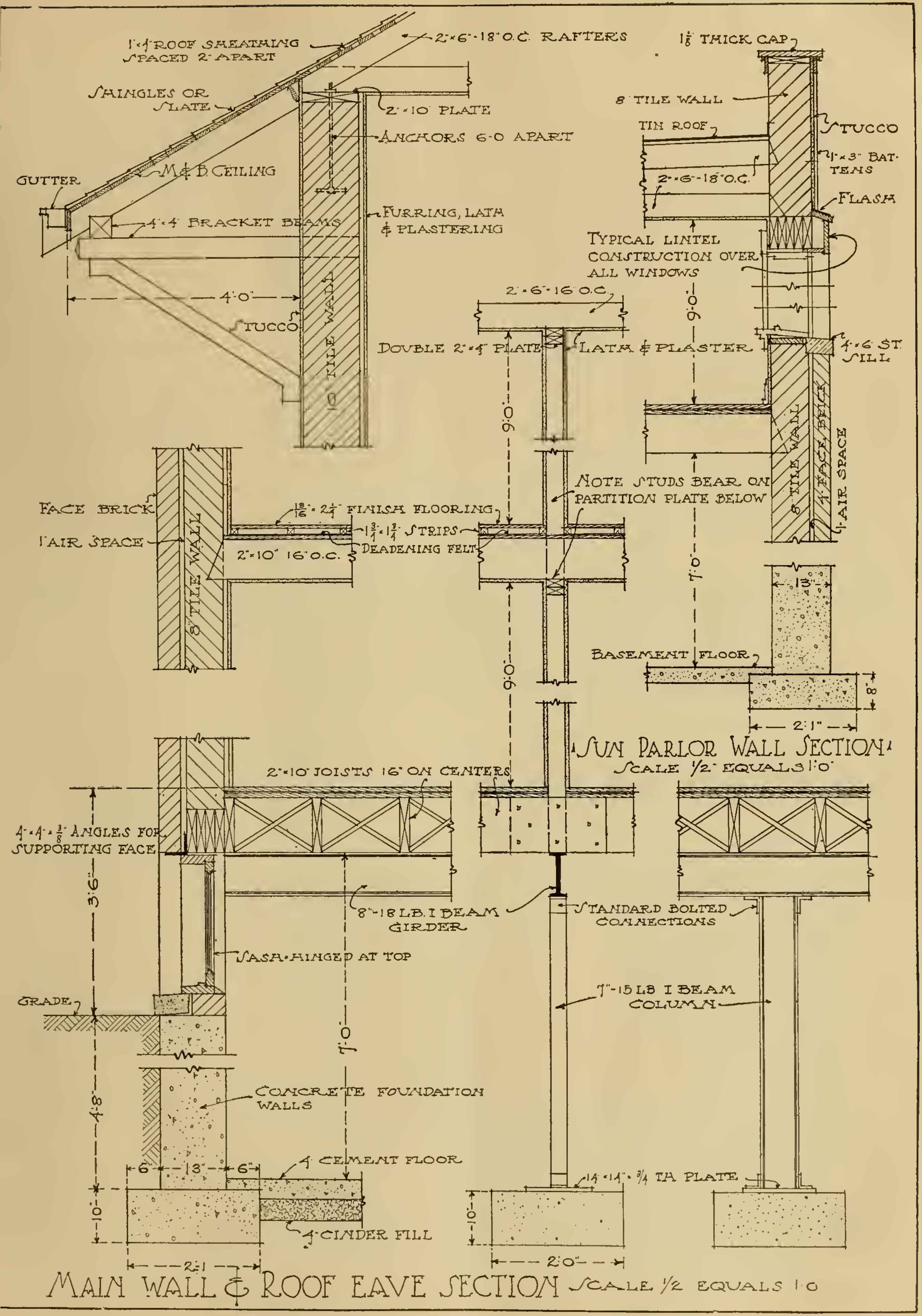


A Pergola Entry.

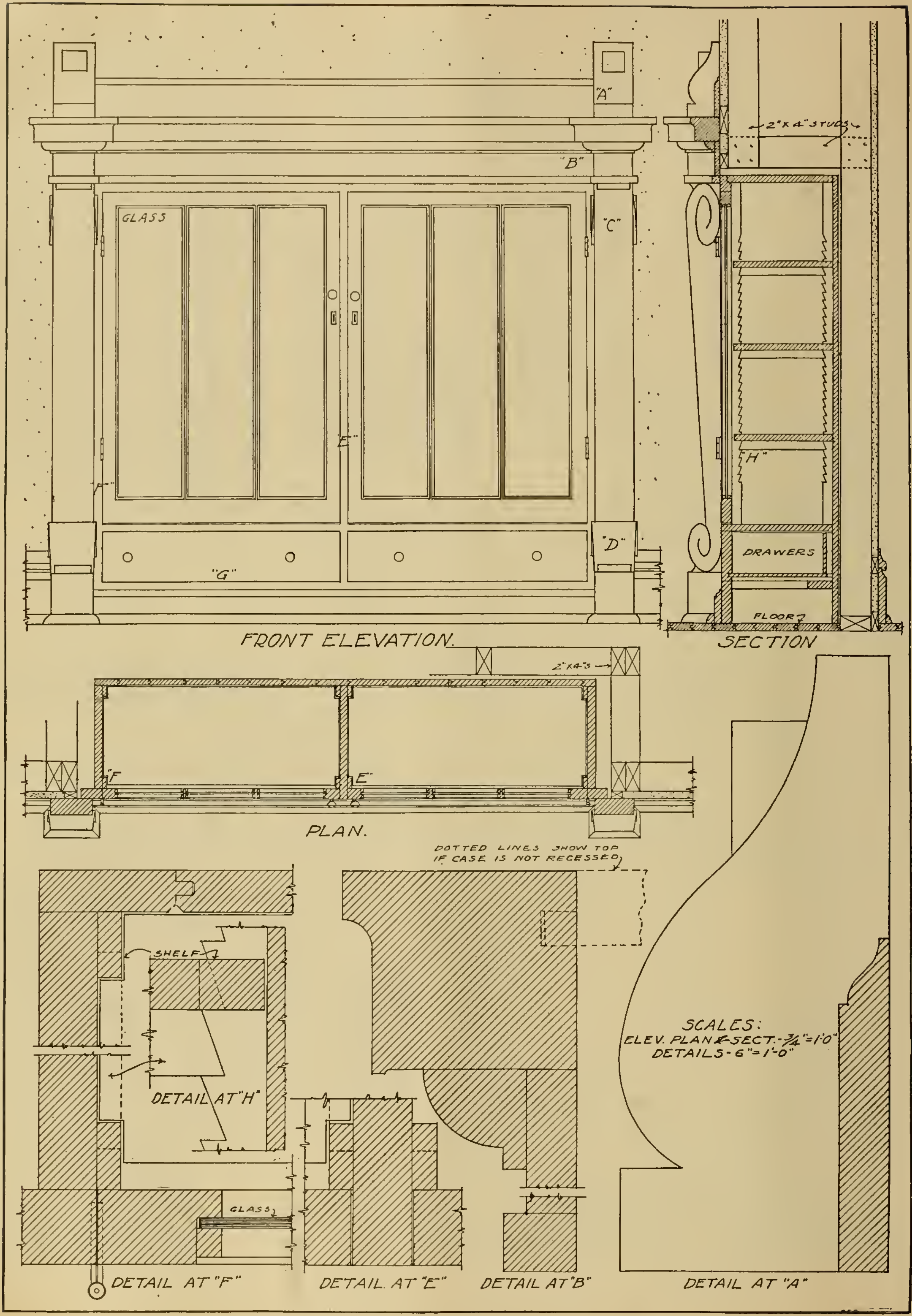


A Trellis and Seat Entry.

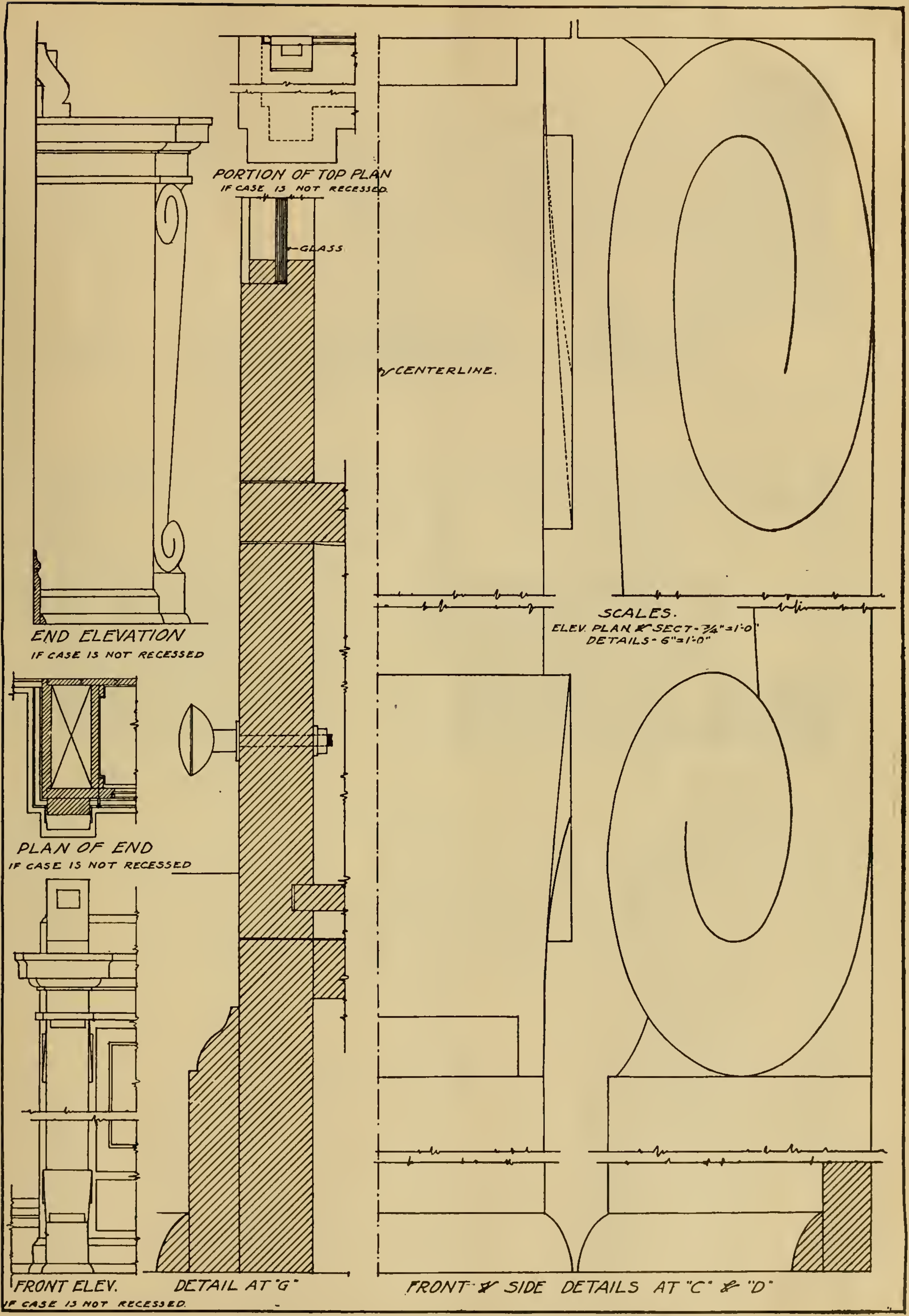
VINE TRELLISES AND ORNAMENTAL FEATURES.



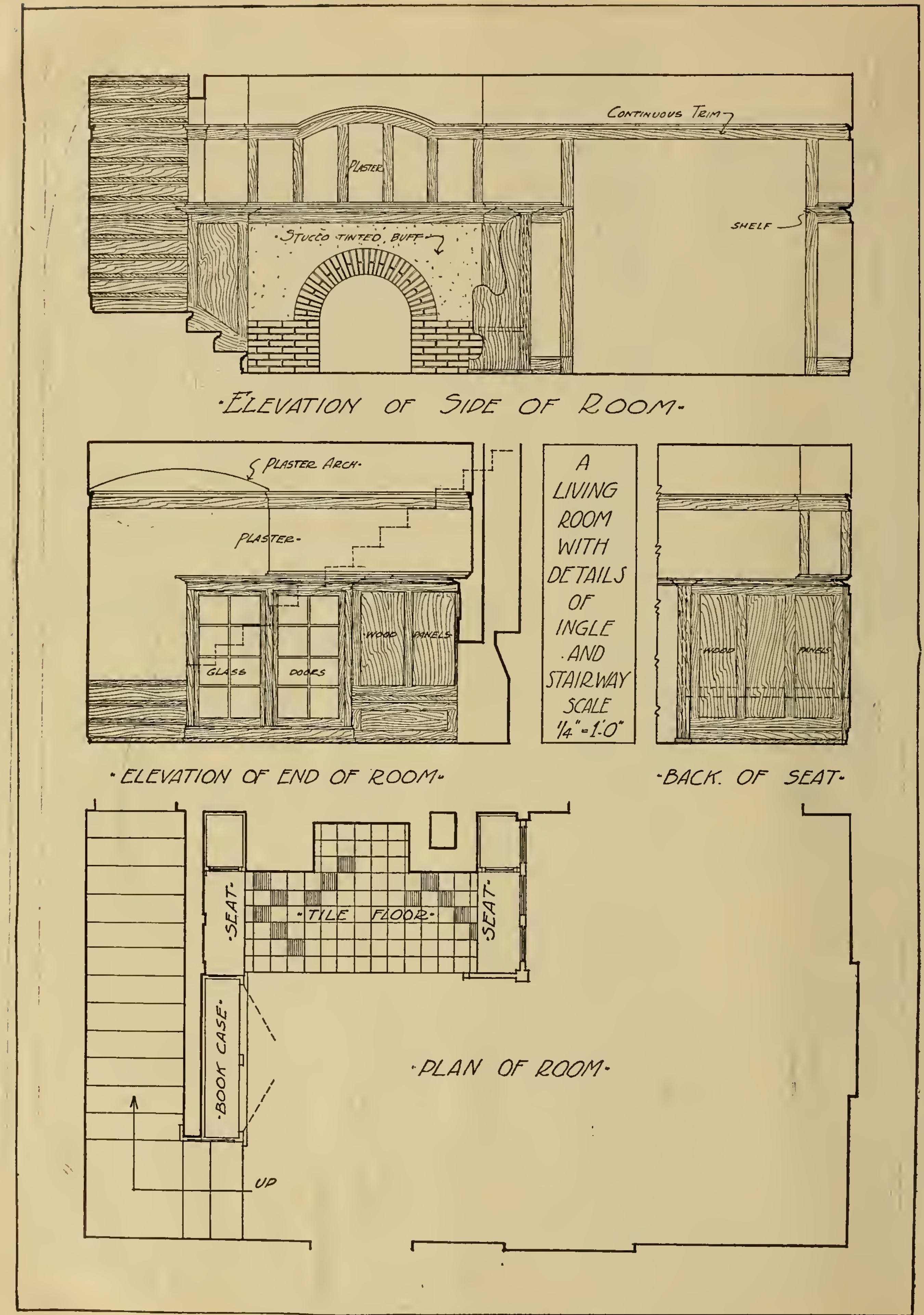
How to Fasten Wood Rafters and Plate to Tile Wall, and How to Seat Joists on Tile.



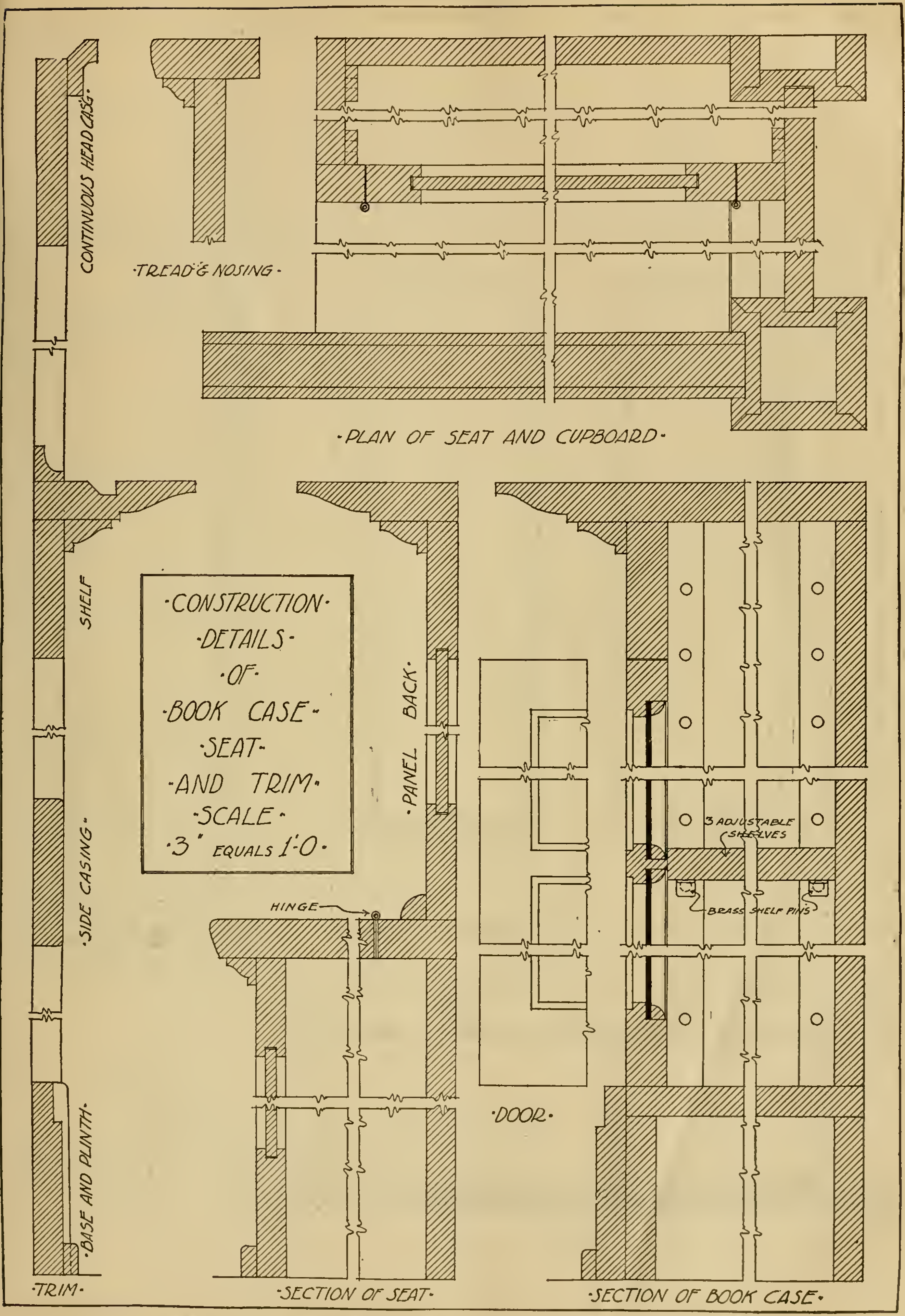
Built-In Colonial Book Case—Recessed (See Opposite Page).



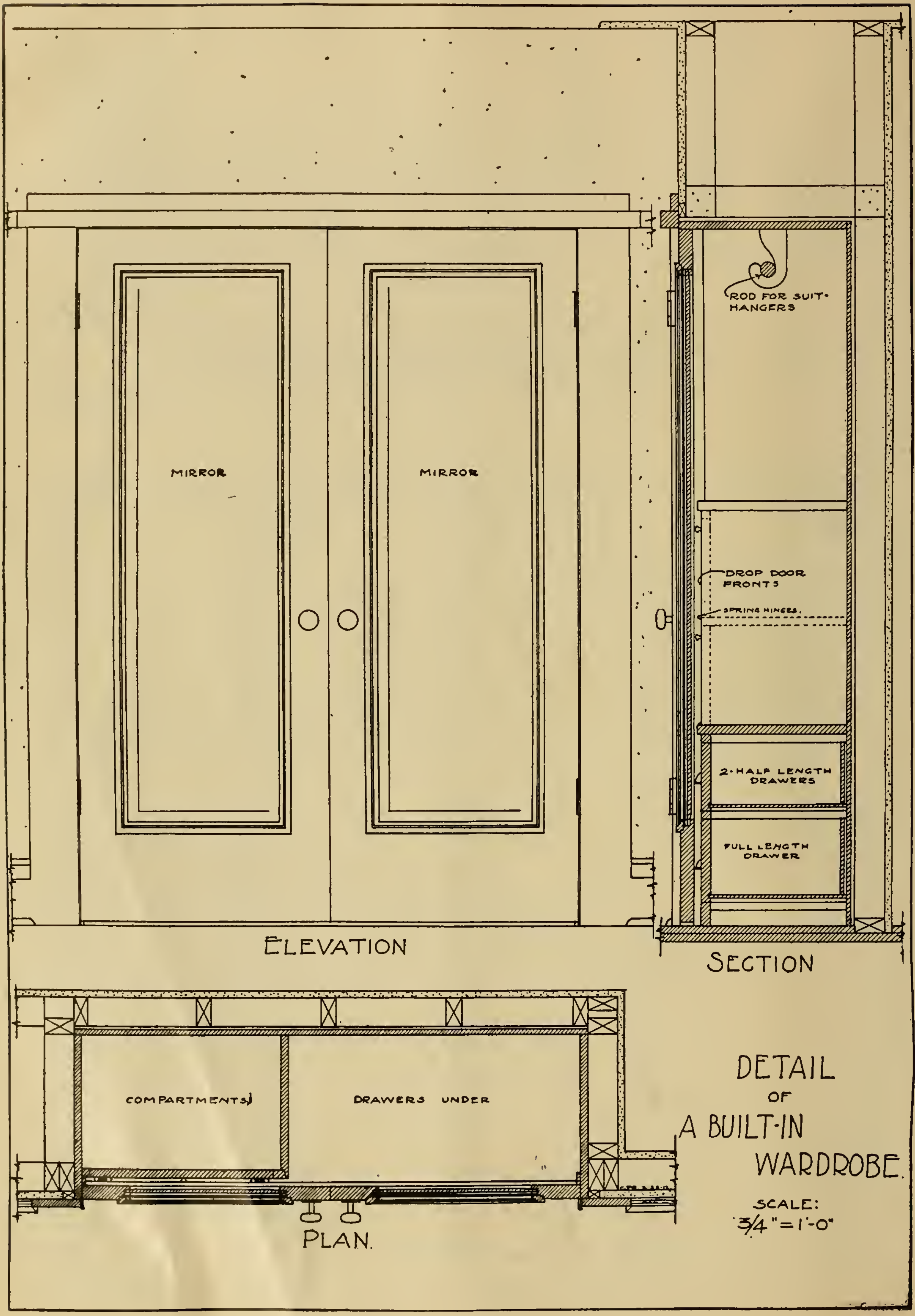
Arrangement of Book Case to Project Into Room (See Opposite Page).



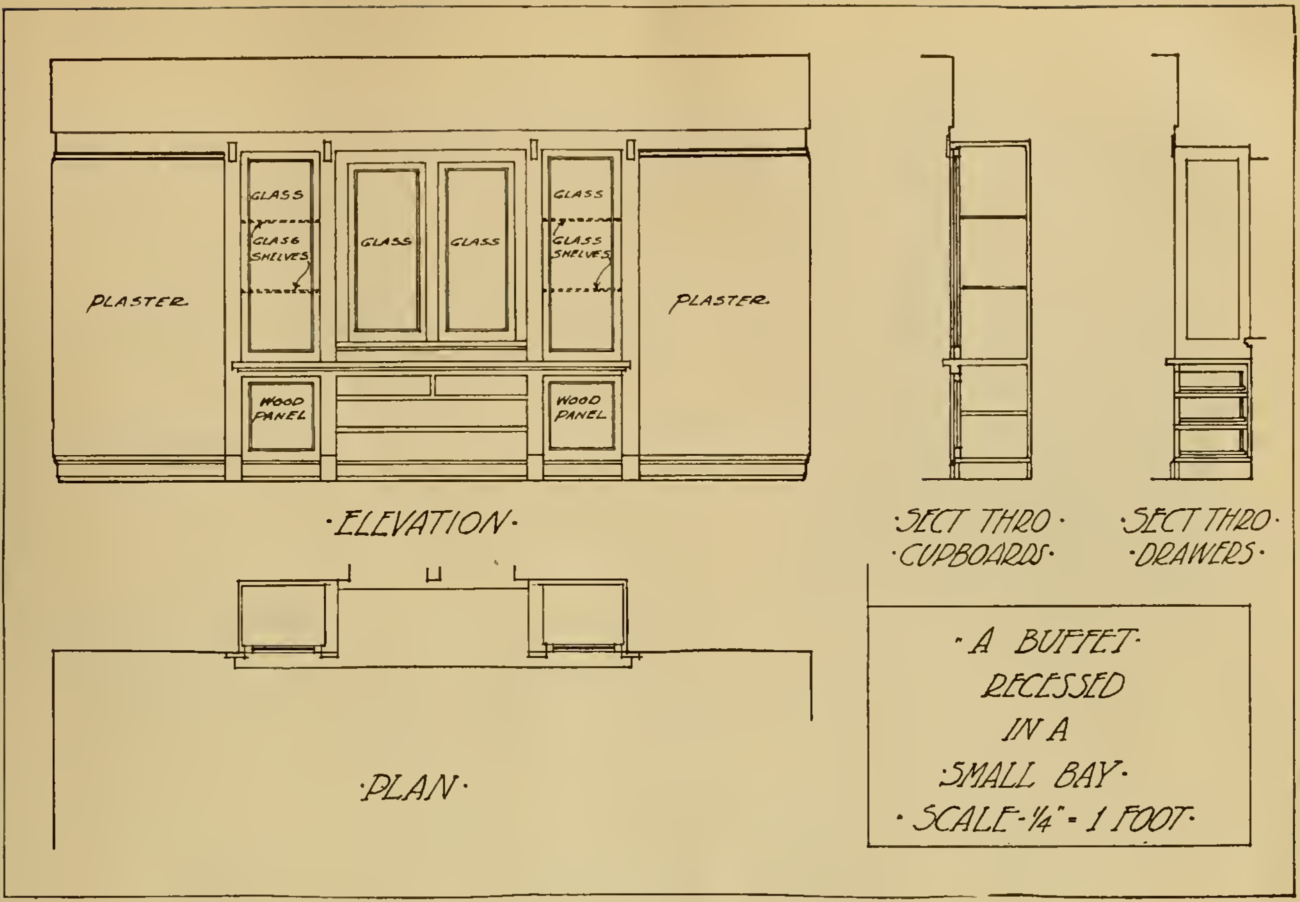
Living Room, with Ingle, Built-In Case and Stair (See Opposite Page for Details).



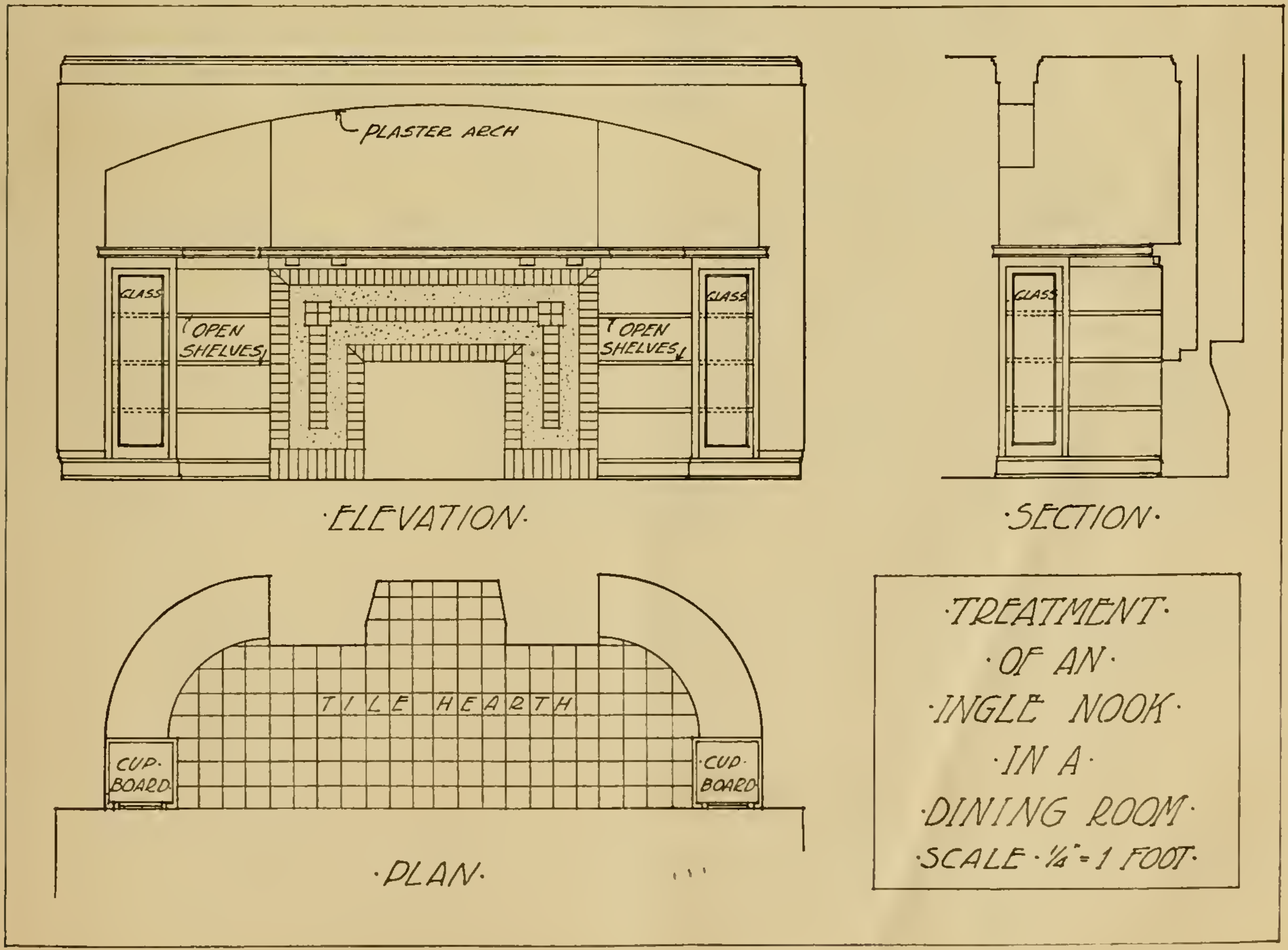
Details of Built-In Case, Seat, Etc., Used in Living Room Design on Opposite Page.



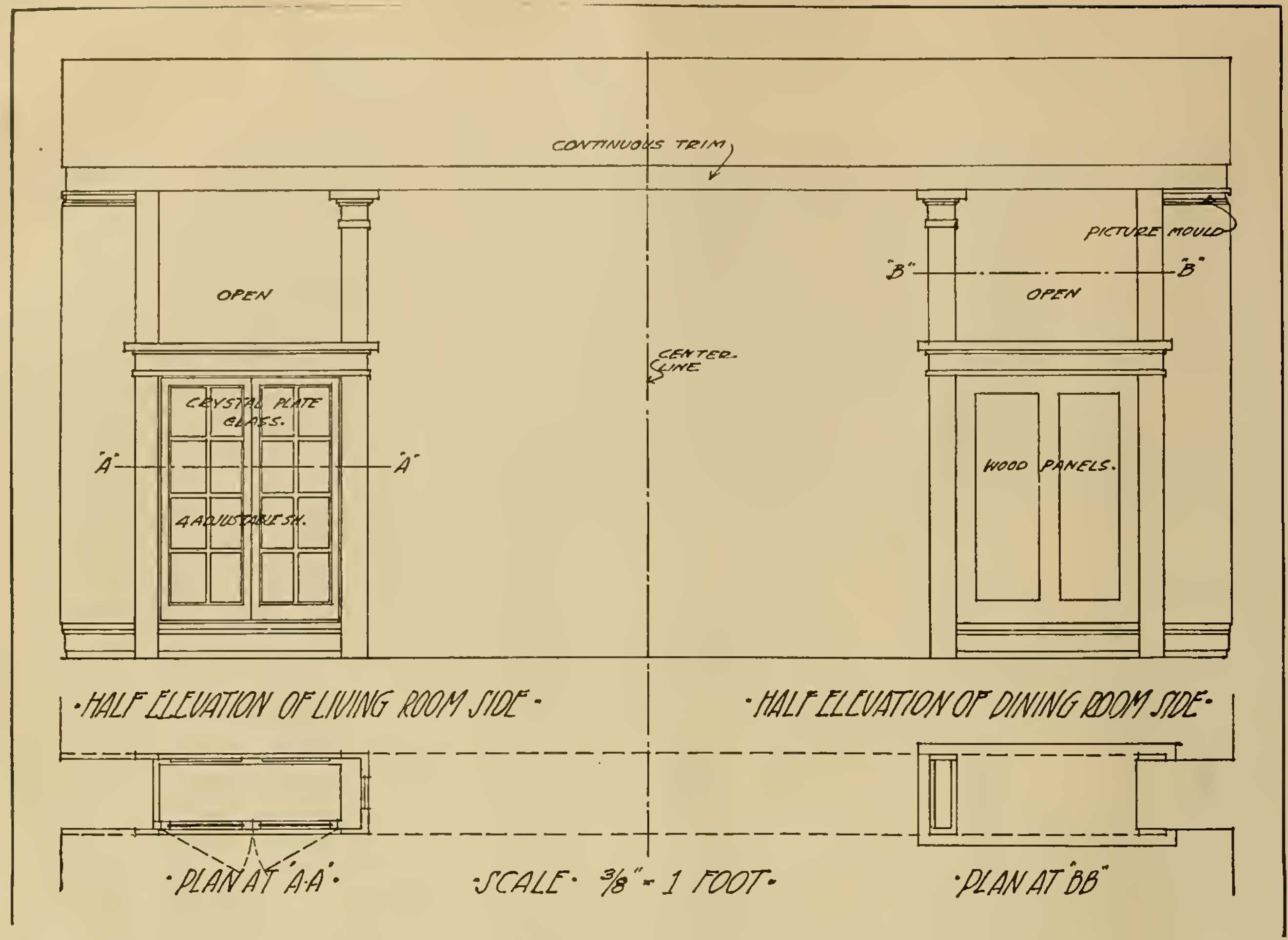
Built-In Wardrobe for Bedroom.



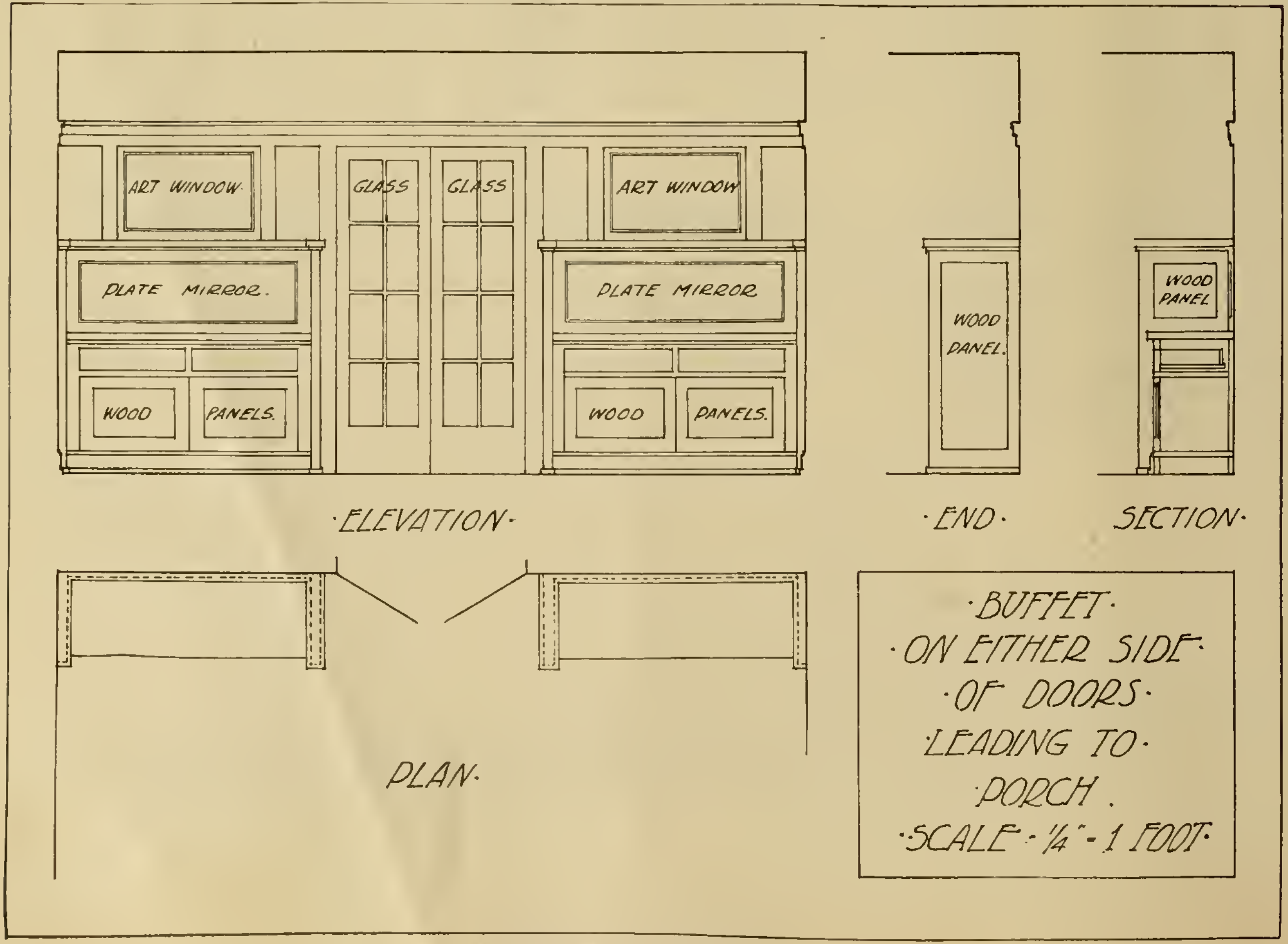
Side Board Set Into Wall.



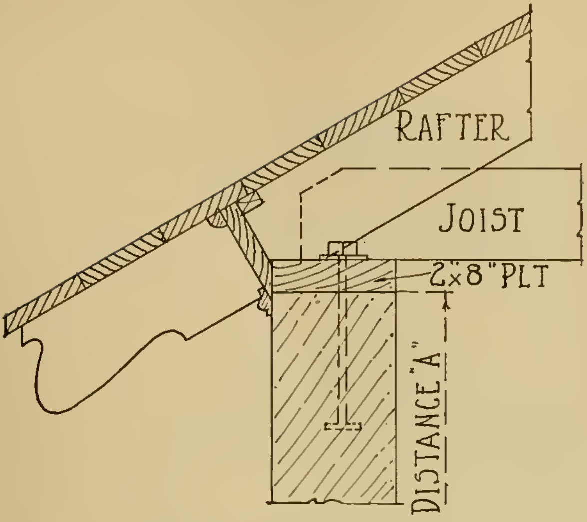
Curved Ingle Nook with Open Shelves.

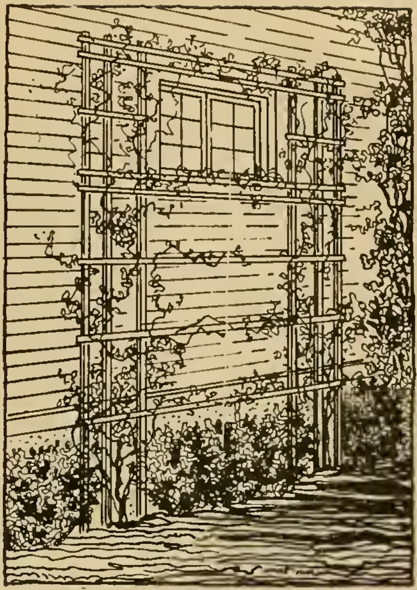


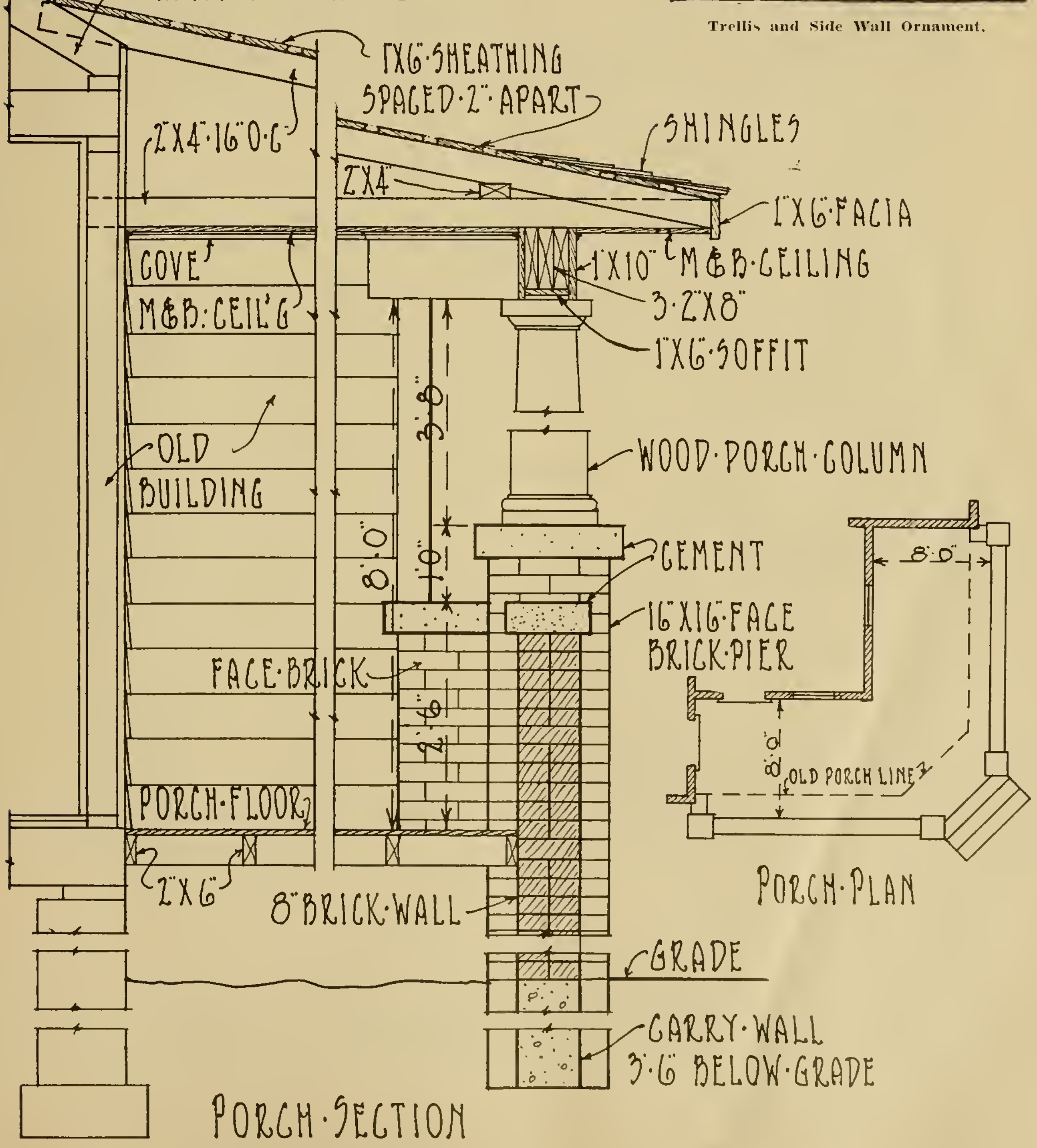
Scale Drawings of China Closet Colonnade Between Dining and Living Rooms.



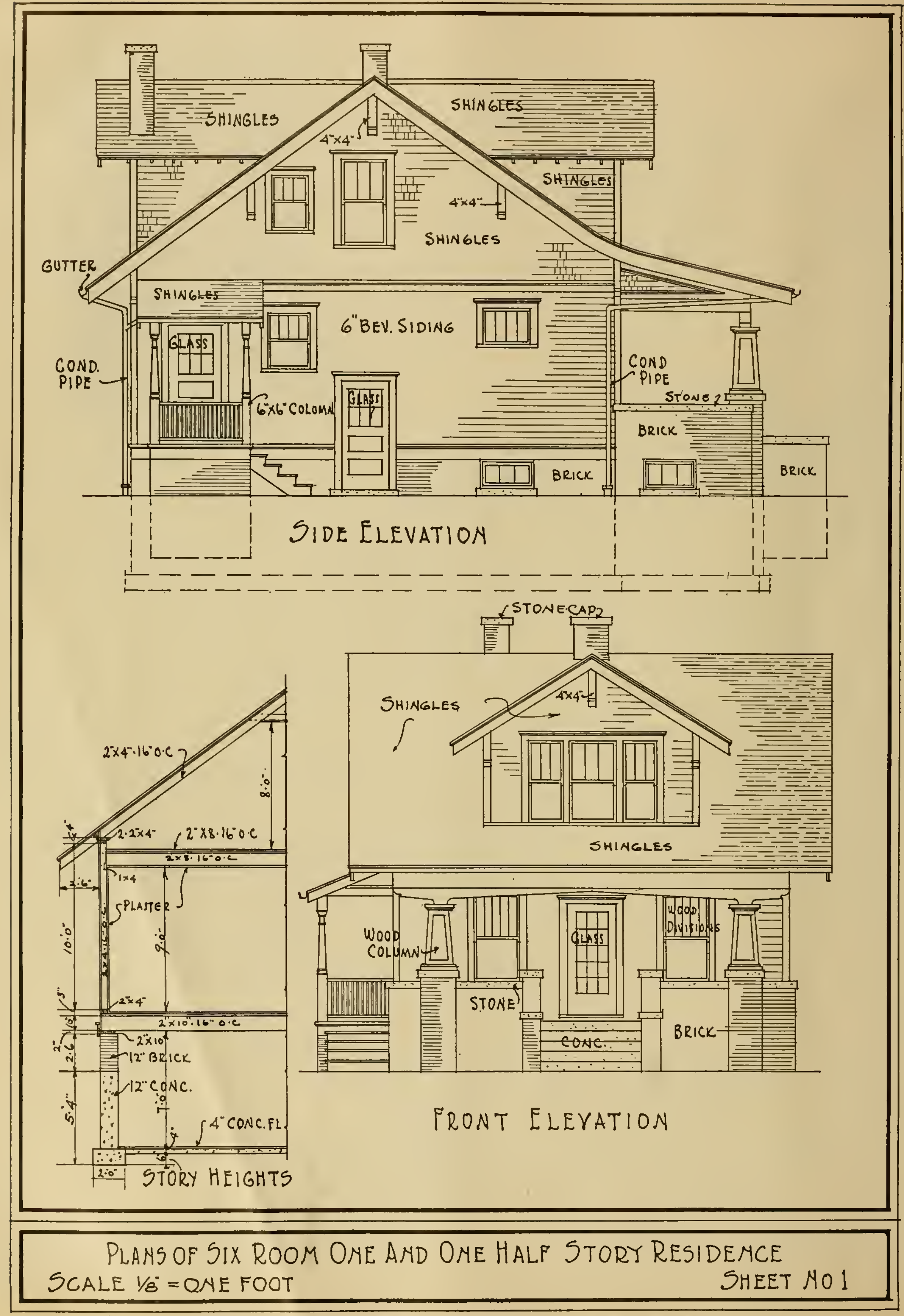
A Built-In Side Board Novelty.



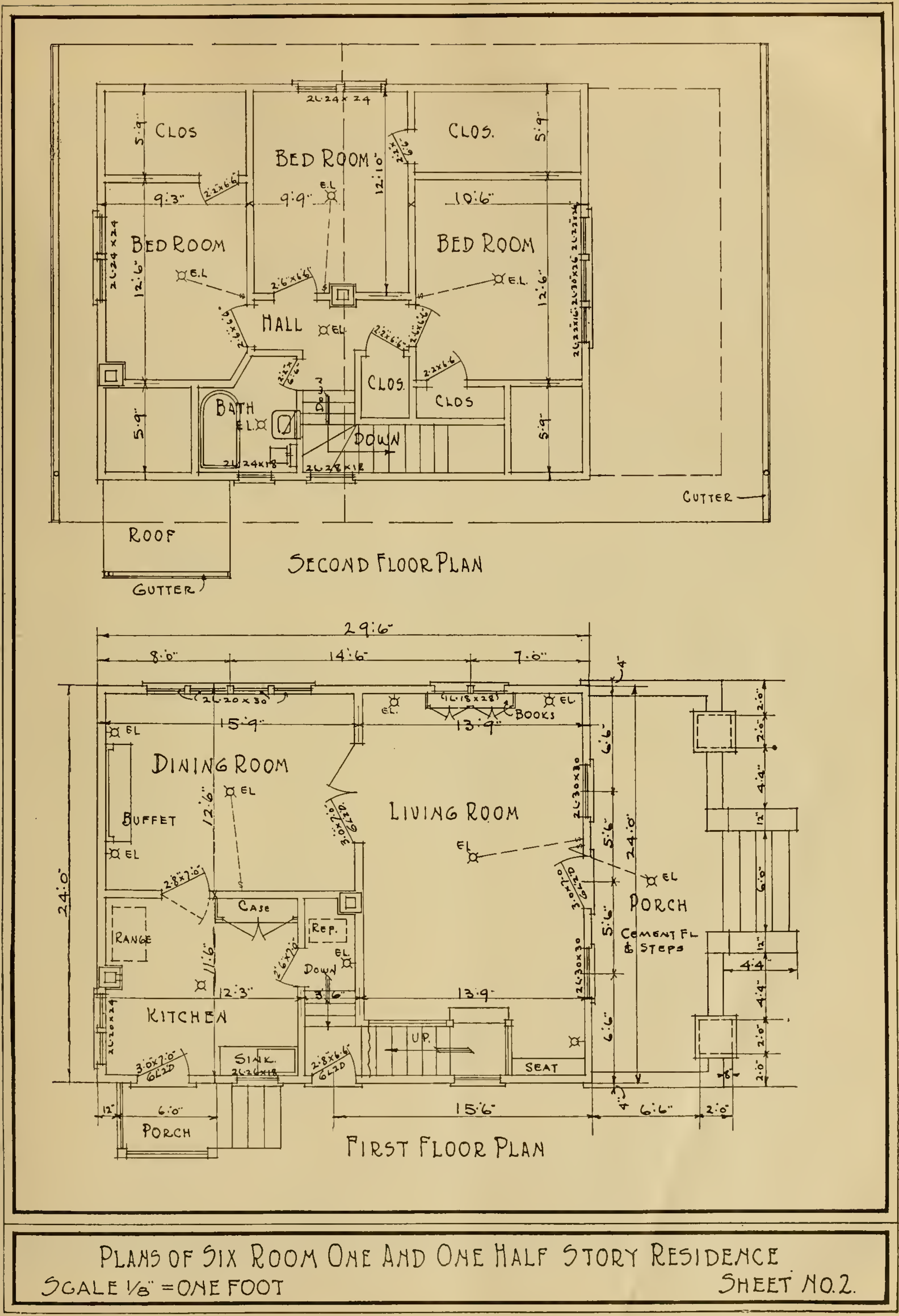

Trellis and Side Wall Ornament.



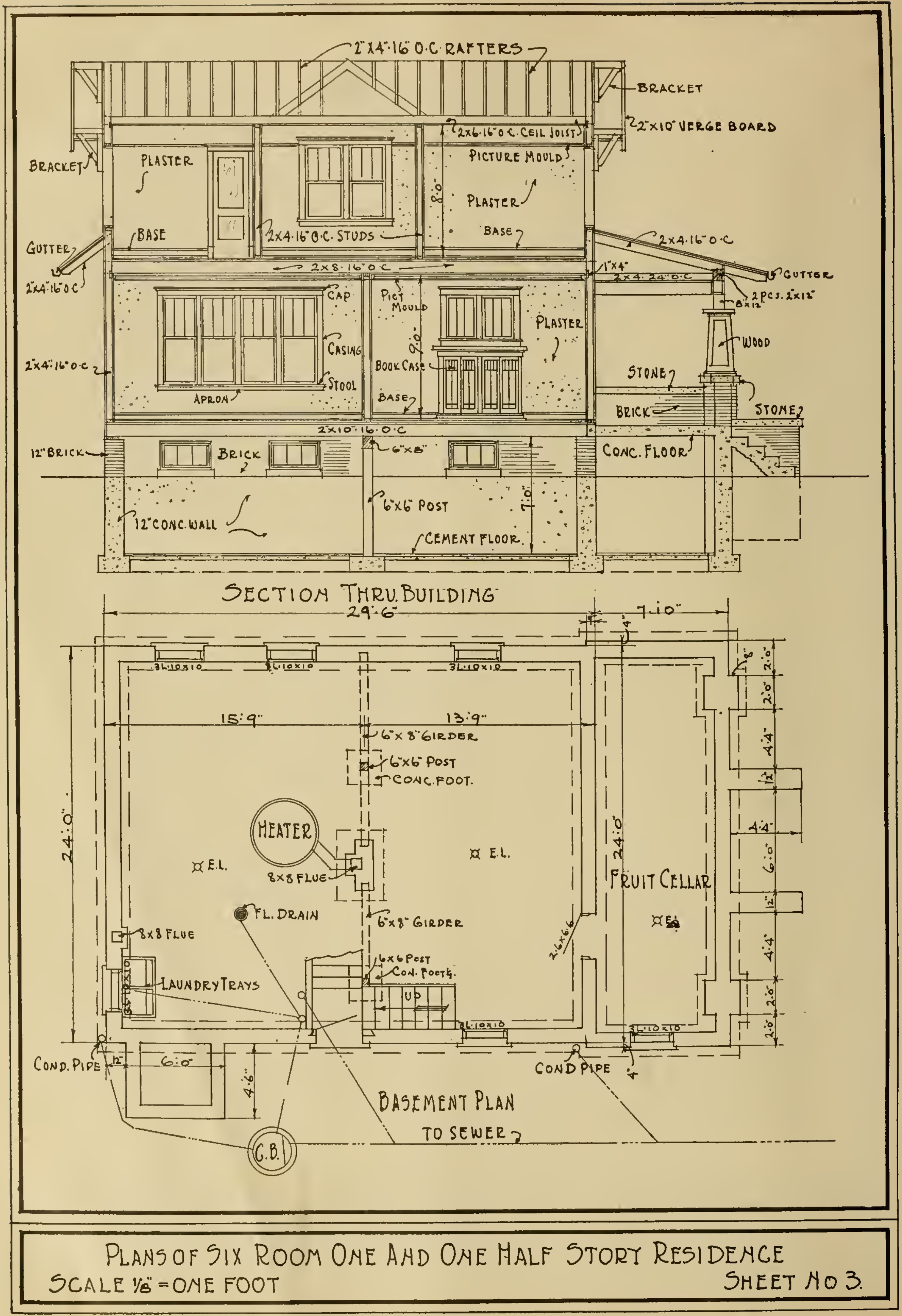
How to Build on a New Brick Porch, Showing Details of a Modernized Porch Suggested as a Substitute for the Old Porch.



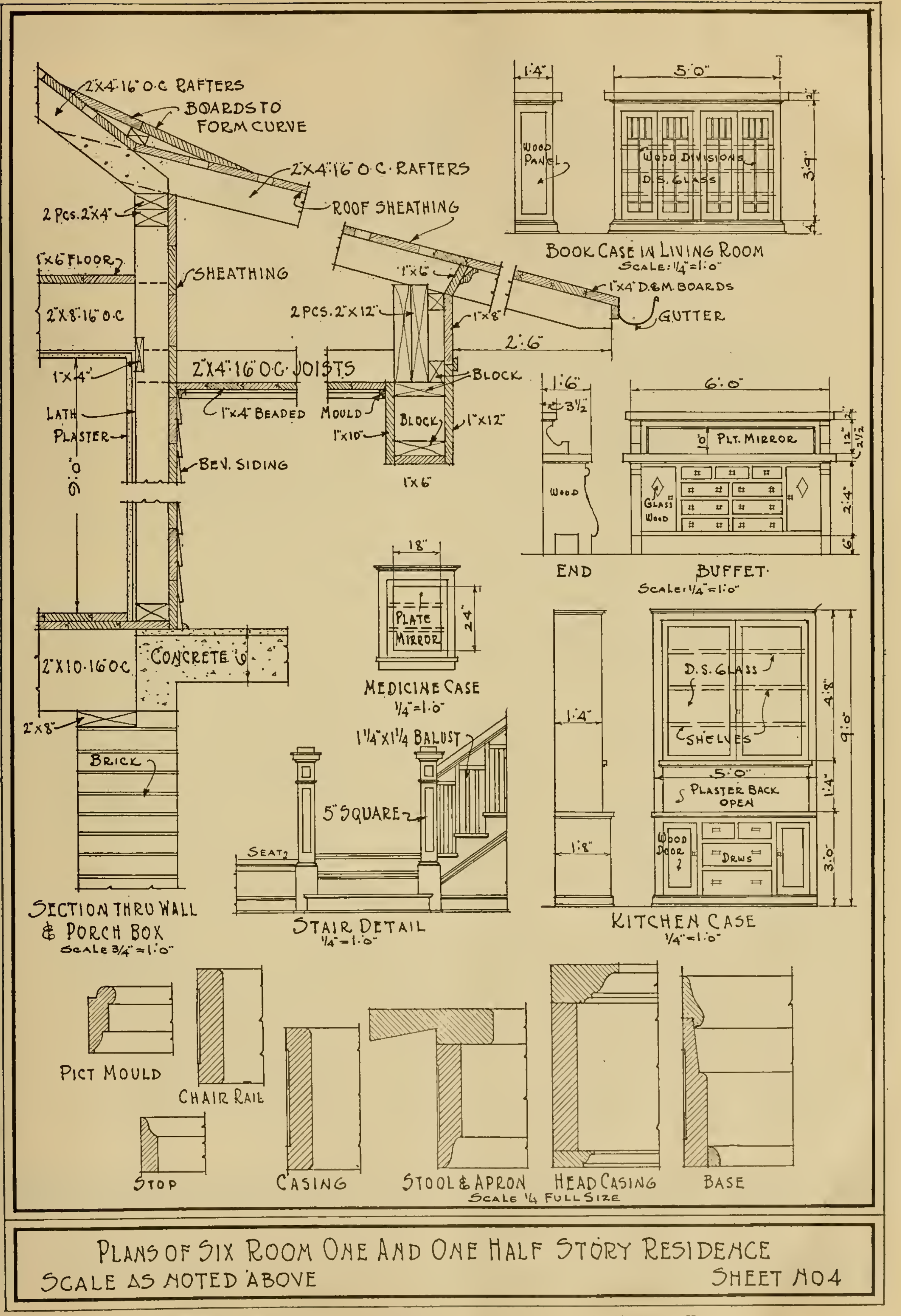
Front and Side Elevations and Wall Section ⅛ Inch to the Foot of Pretty Little Six-Room Home.



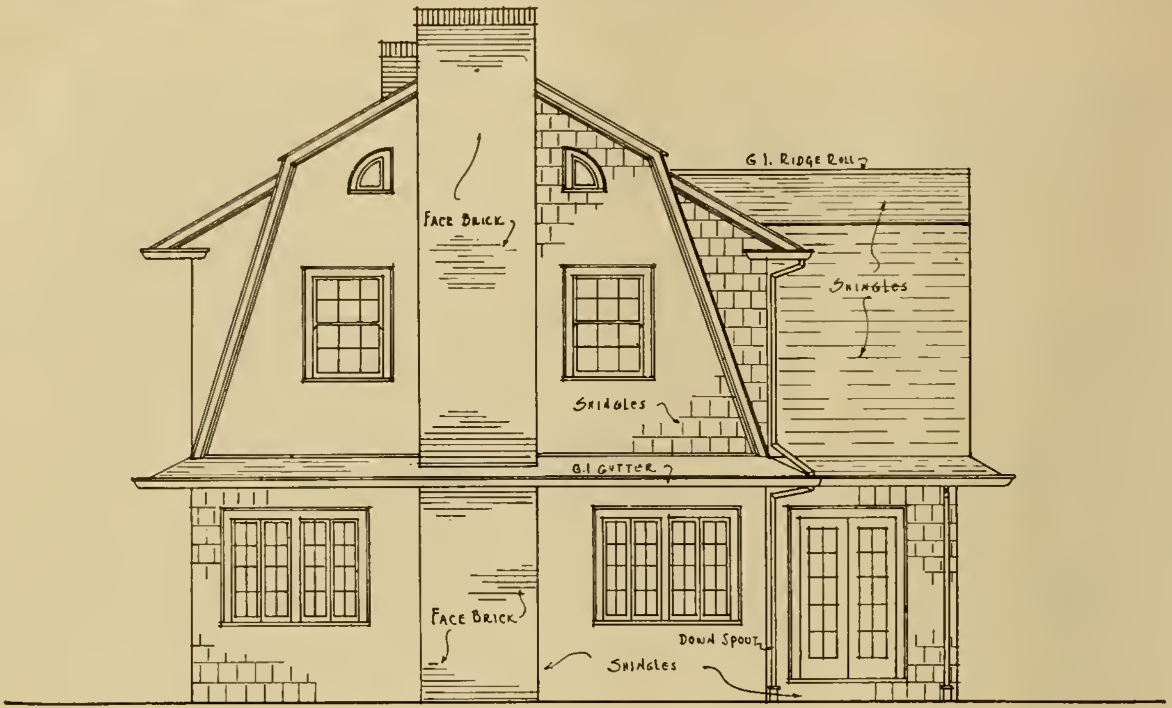
First and Second Floor Plans of Pretty Little Six-Room Home.



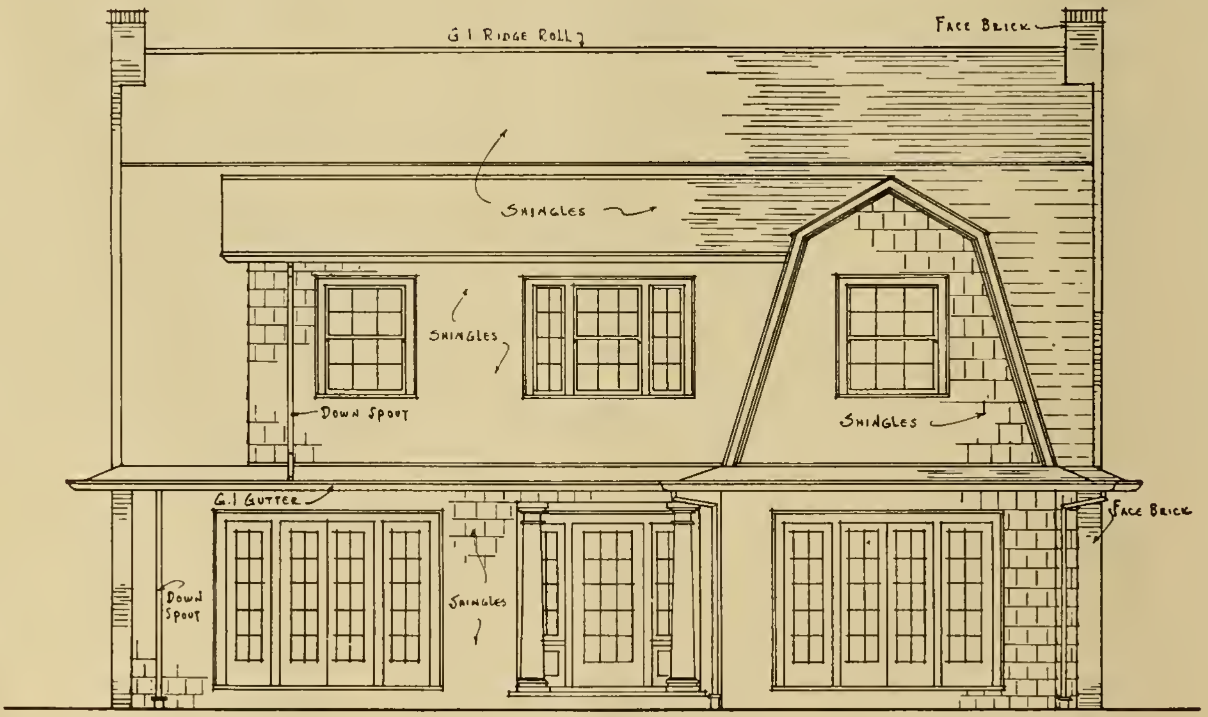
Basement Plan and Section Thru Building Showing Construction 1/8 Inch to the Foot of Pretty Little Six-Room Home.



Details of Inside Trim and of Wall Construction, Pretty Little Six-Room Home.



LEFT SIDE ELEVATION

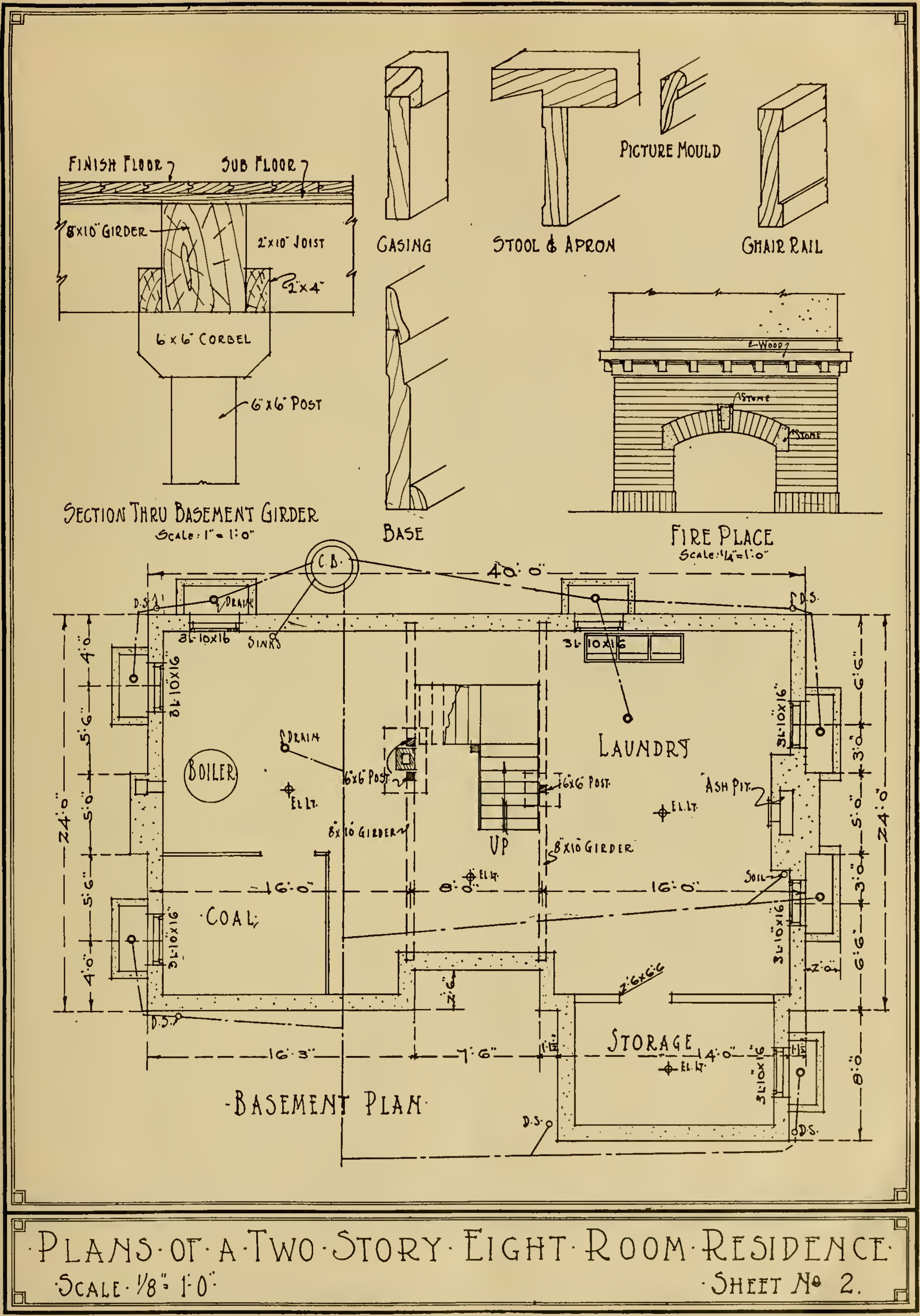


FRONT ELEVATION

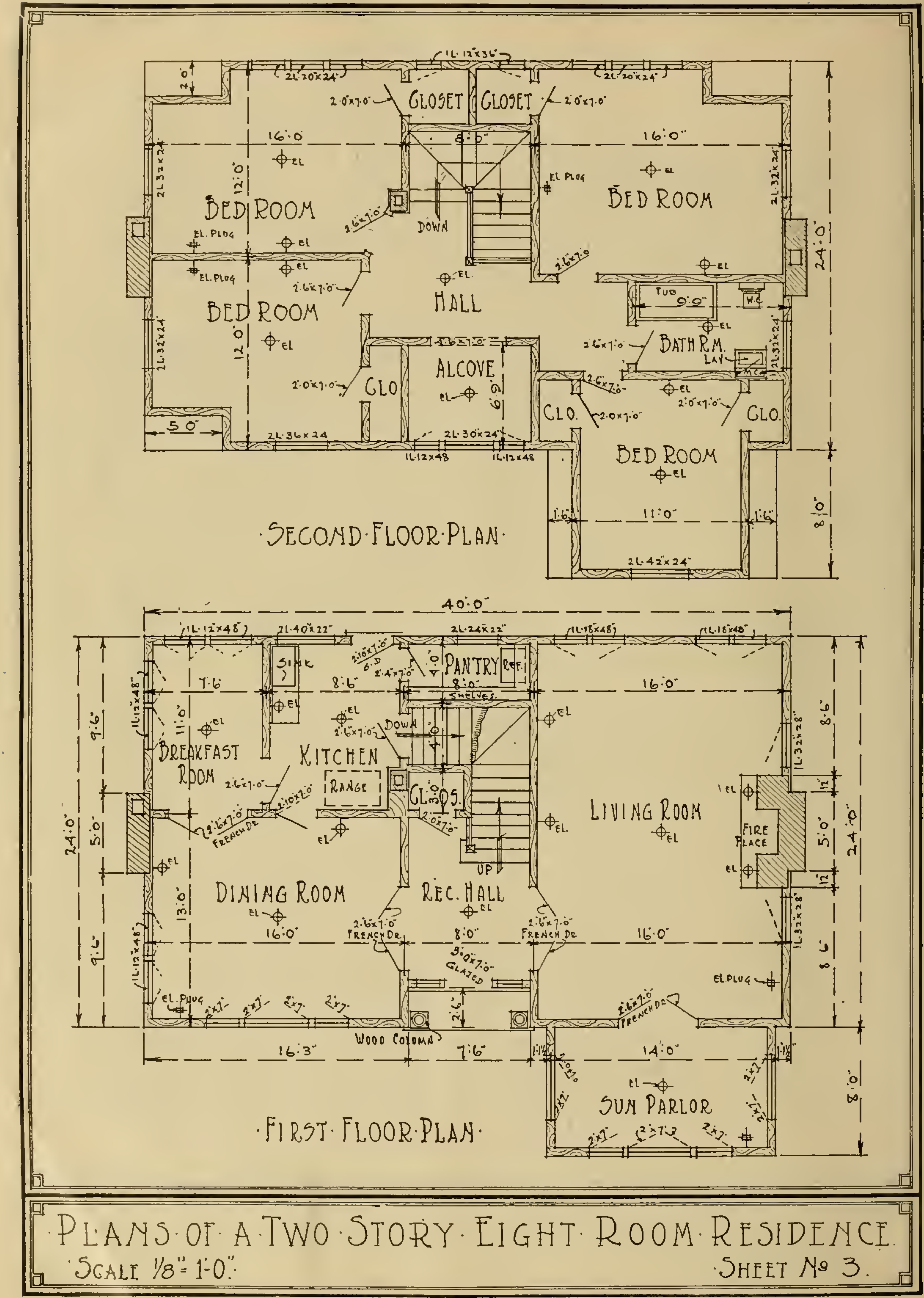
·PLANS·OF·A·TWO·STORY·EIGHT·ROOM·RESIDENCE·

·SCALE 1/8" = 1'-0"· ·SHEET No 1·

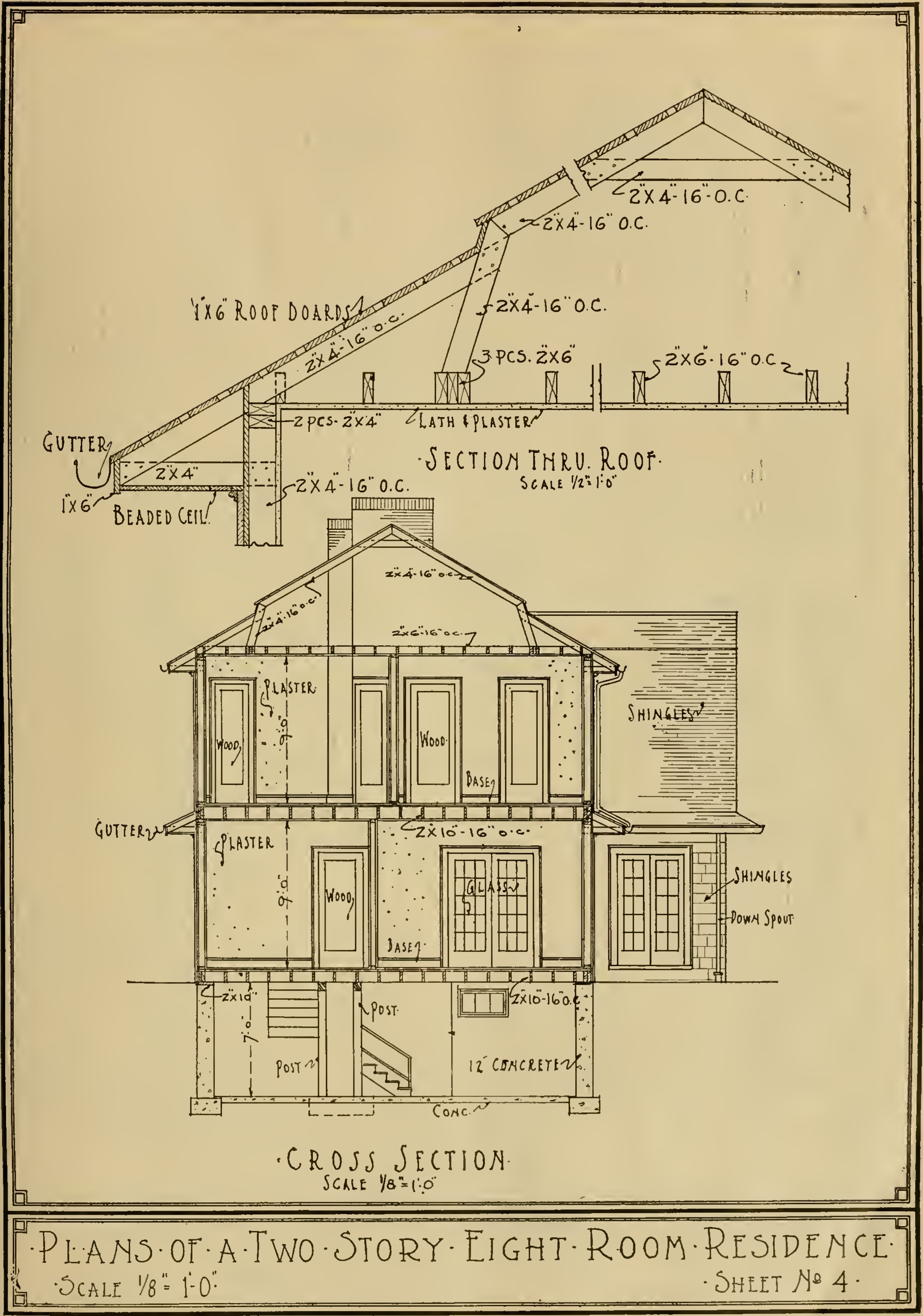
Front and Side Elevations, Scale 1/8 Inch Equals One Foot, of Dutch Colonial Residence.



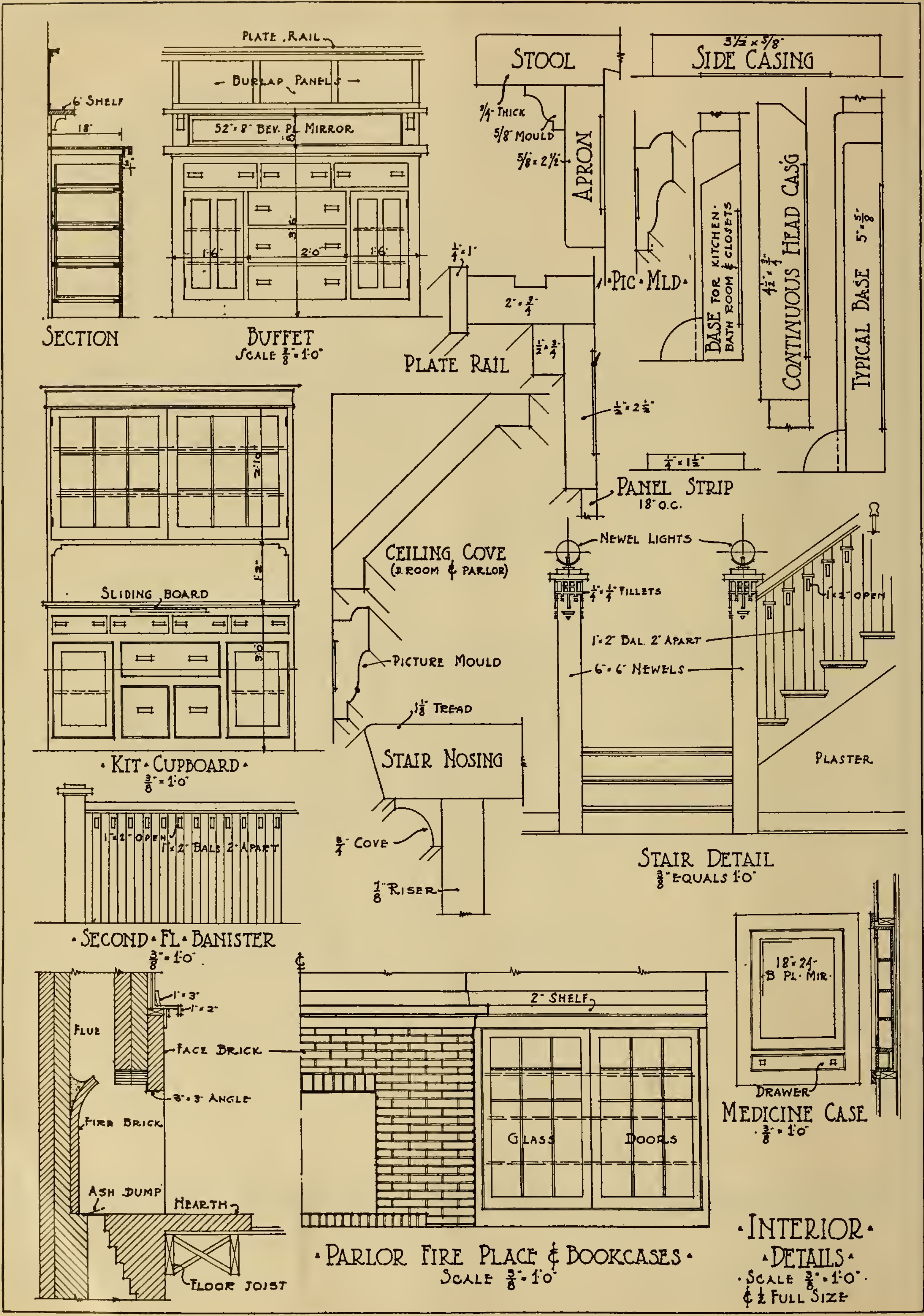
Basement Plan and Details, ⅛-, ¼- and 1-Inch Scales, of Dutch Colonial Residence.



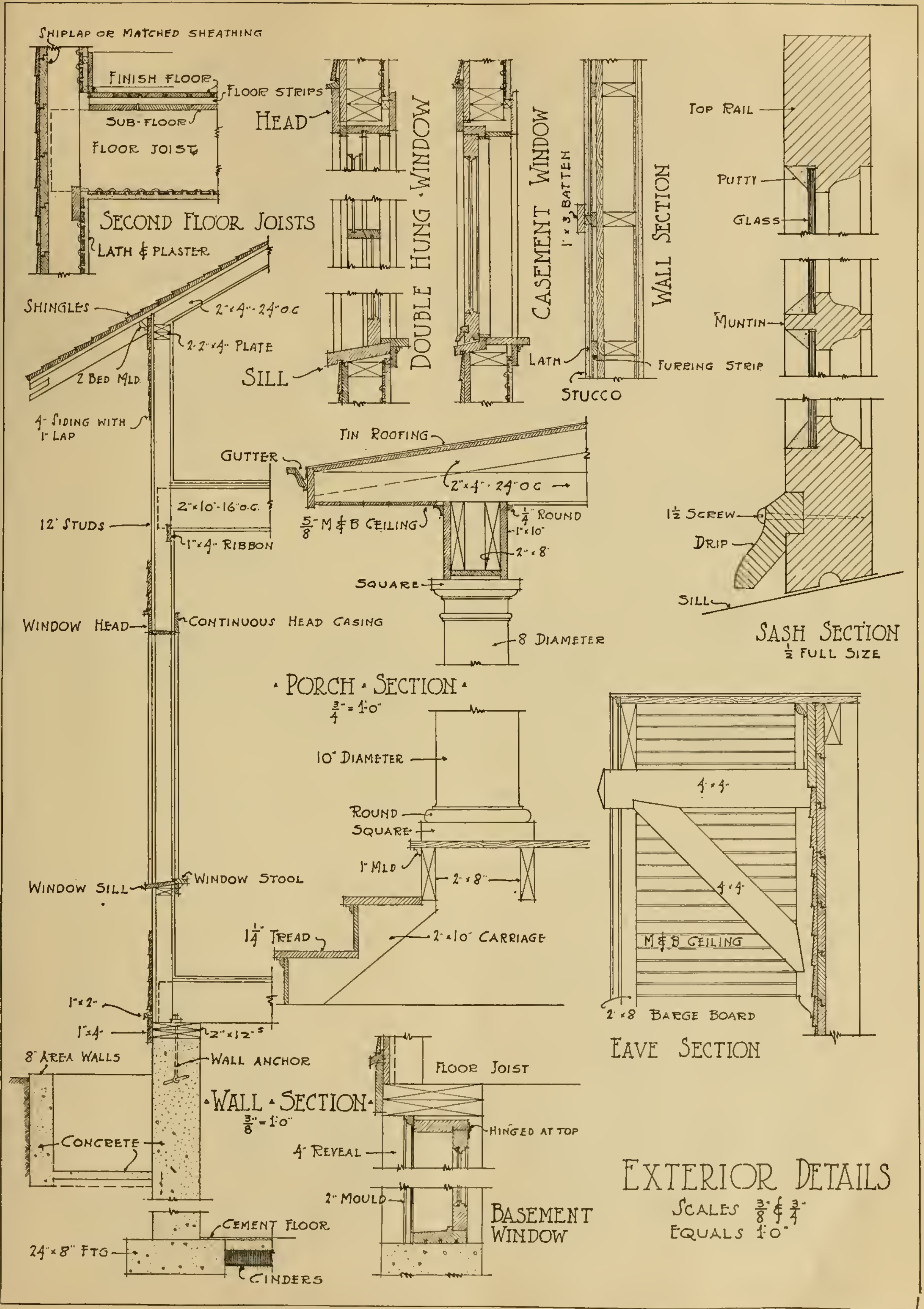
First and Second Floor Plan of Dutch Colonial Residence.



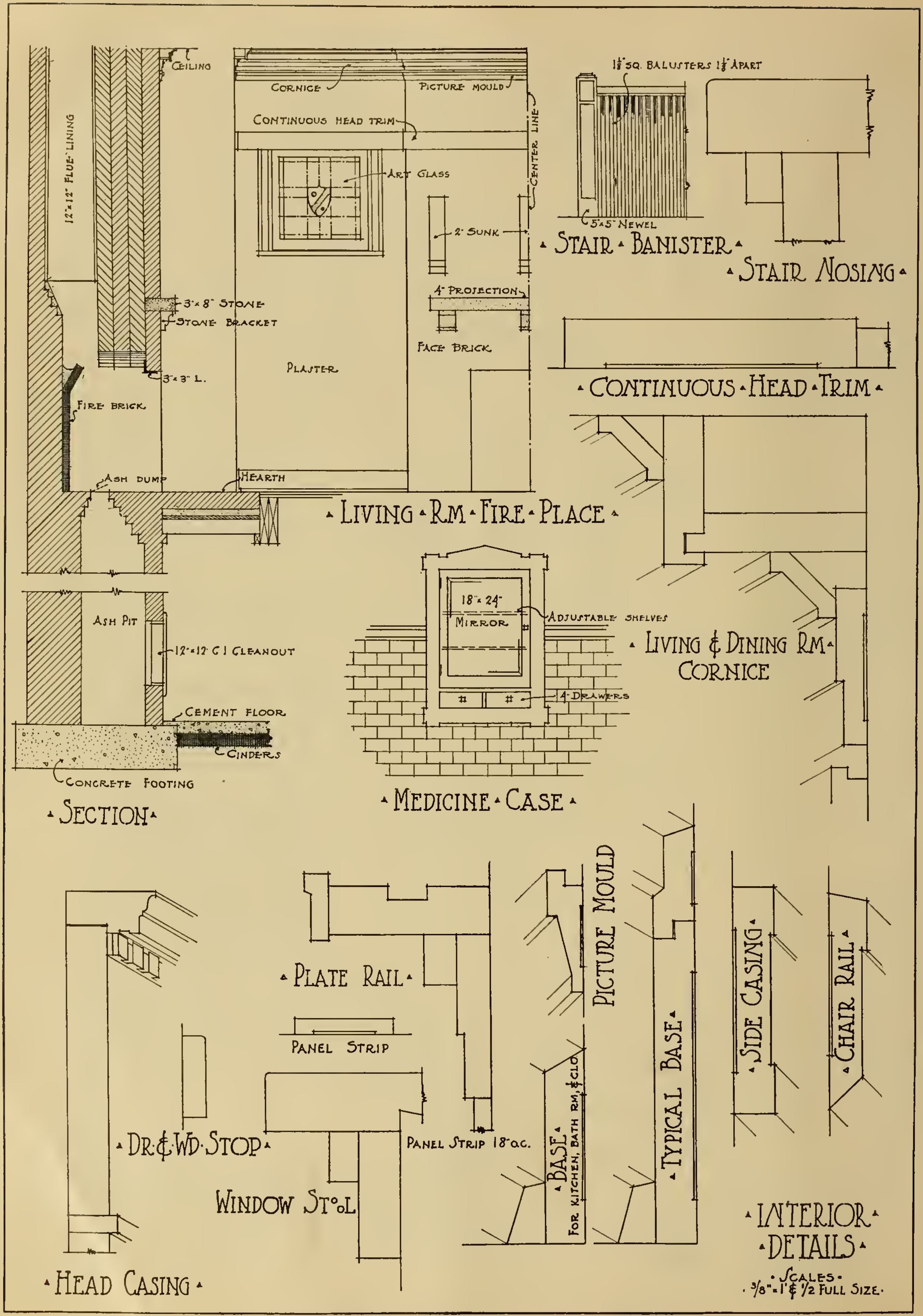
Section and Construction Detail, Drawn to 1/8- and 1/2-Inch Scales, of Dutch Colonial Residence.



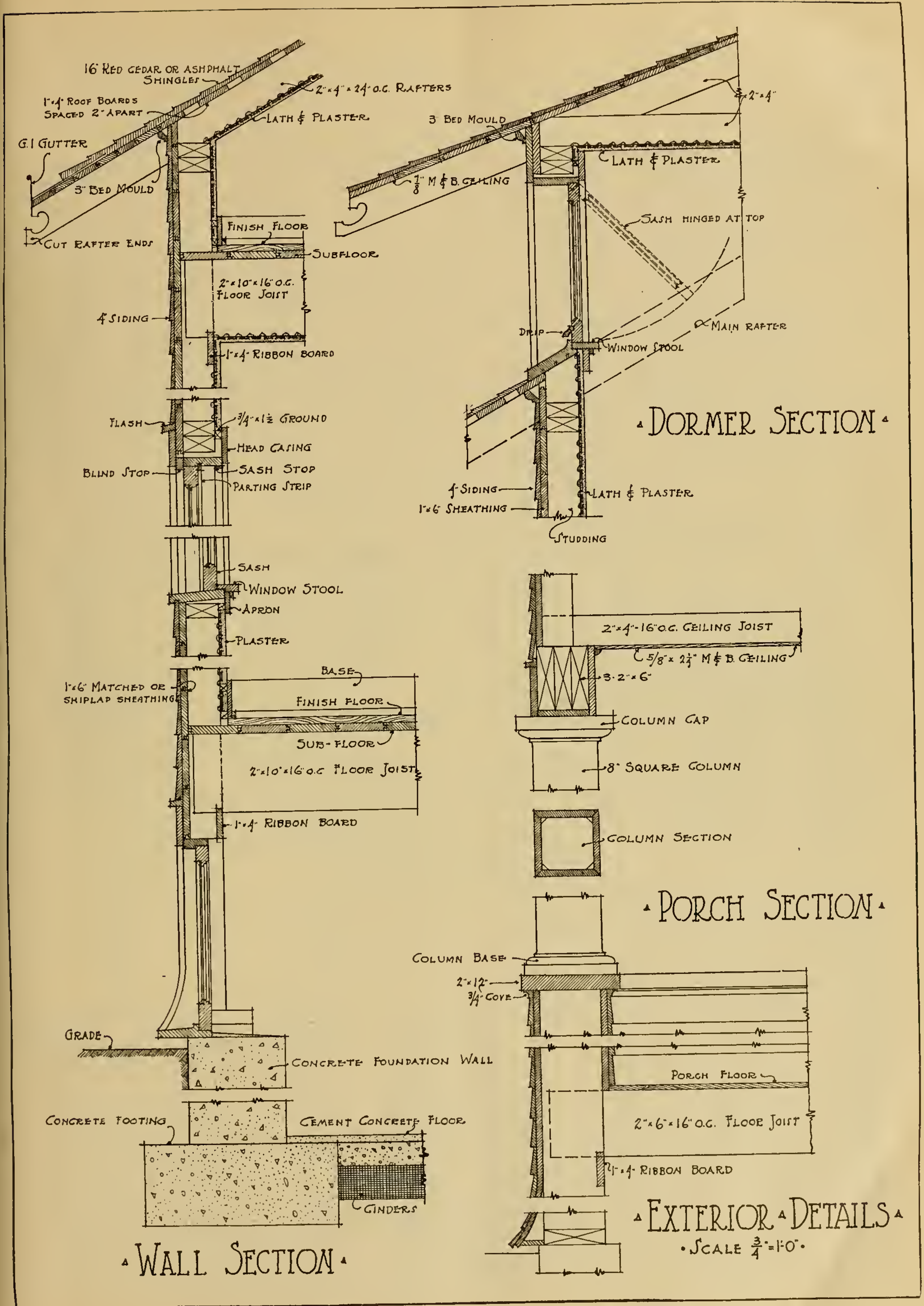
Typical Interior Details of Southern Style Residence.



Exterior Details of Construction, to Scale, of Southern Style Residence.



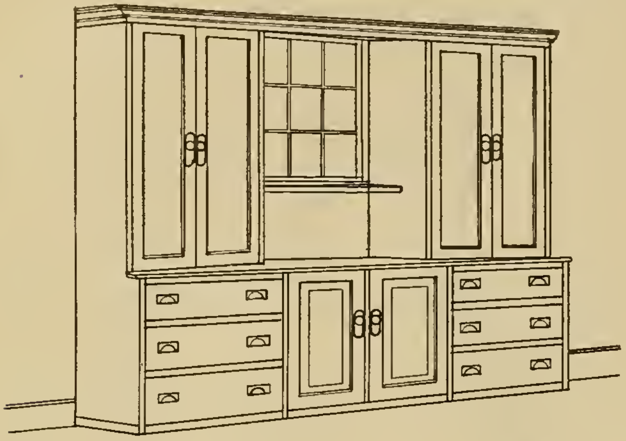
Complete Details of Interior Finish for Compact Residence.



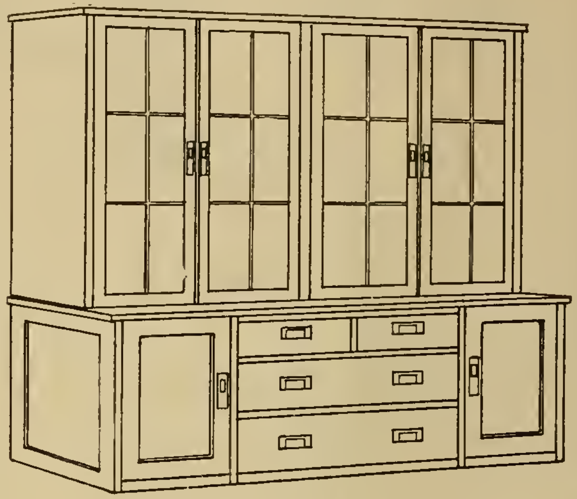
Exterior Details of Construction, to Scale, of Compact Residence.

Built-in Furniture--Some Interesting Designs

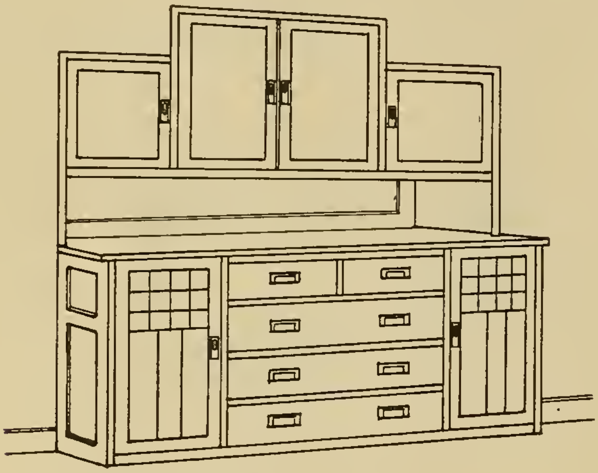
ONE of the charms of the interior of any home is the furniture which is built into it. The dressers, seats, bookcases more than half solve the problem of furnishing it. Furniture that is built to fit the place it is in, is far more decorative and more comfortable than detached pieces could be in the same place. Not only is space saved by this means, but a keynote is given for the rest of the fittings in the home, which, unless it is utterly disregarded, will tend to keep the furnishings of the room in harmony.



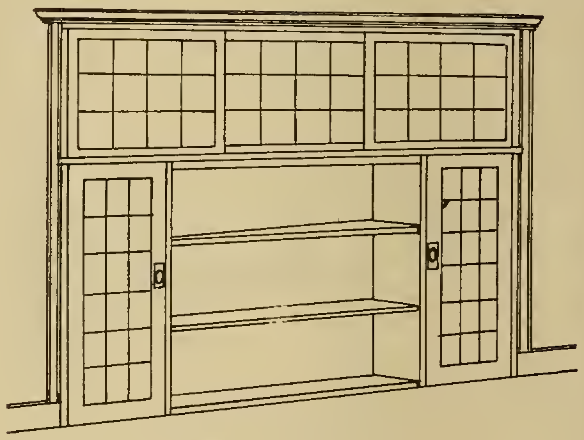
Large Kitchen Cupboard, Lighted at Center by Casement Window.



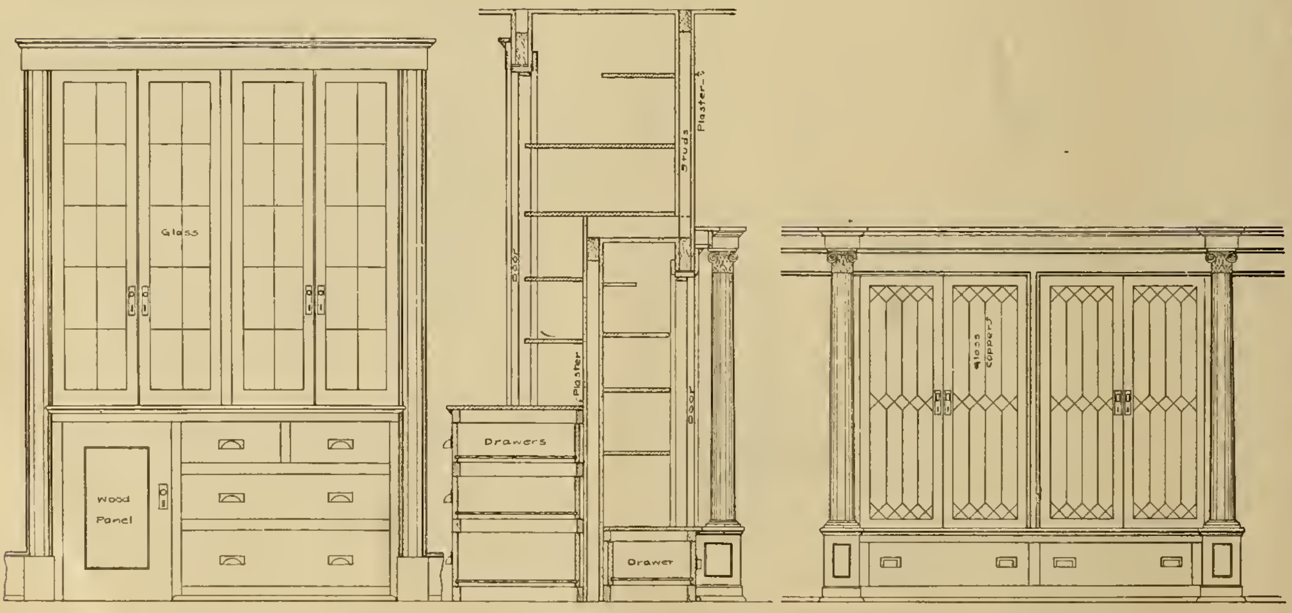
Kitchen Cupboard of Generous Dimensions.



Dining Room Buffet.

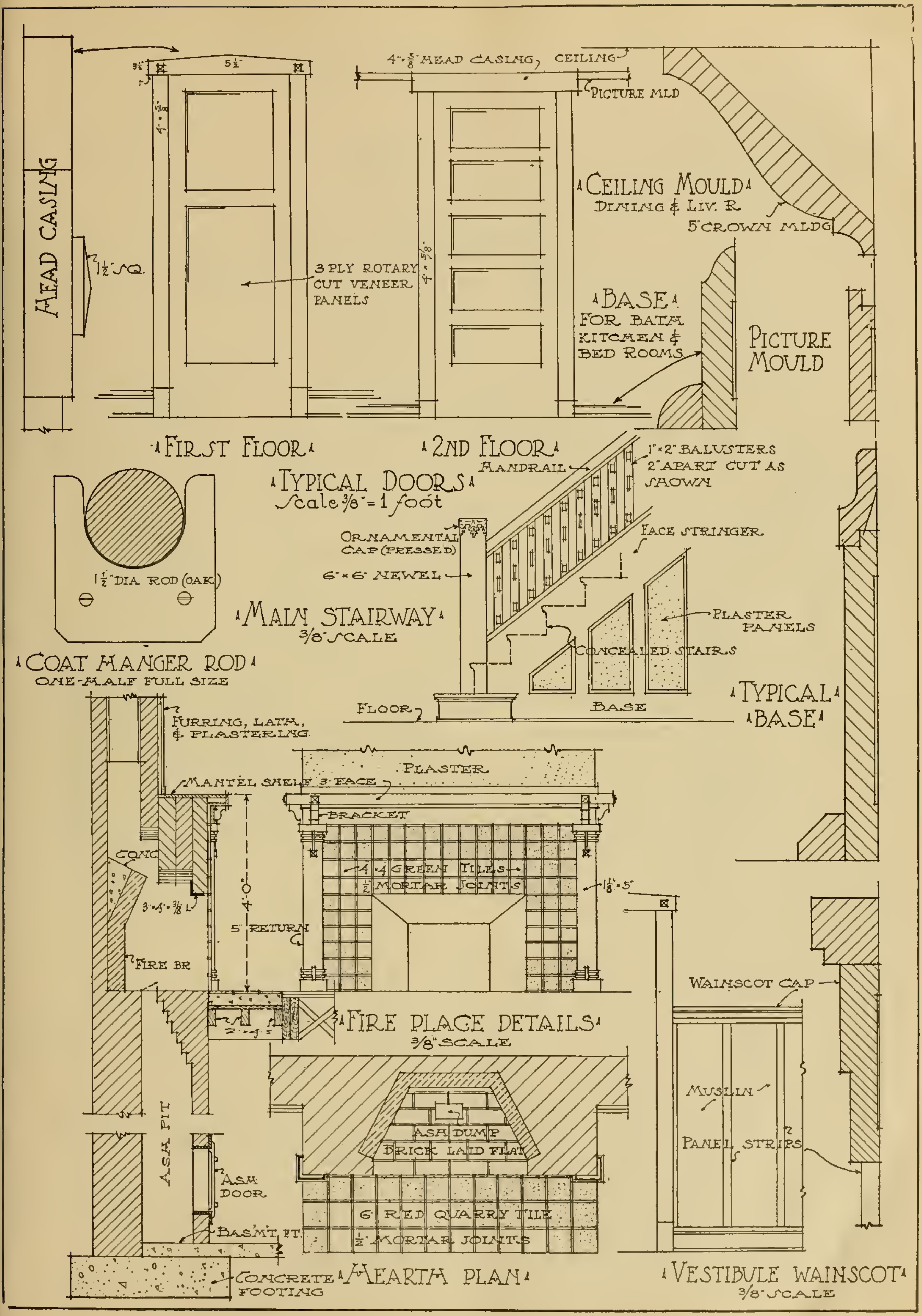


Book Cases and Book Shelves.

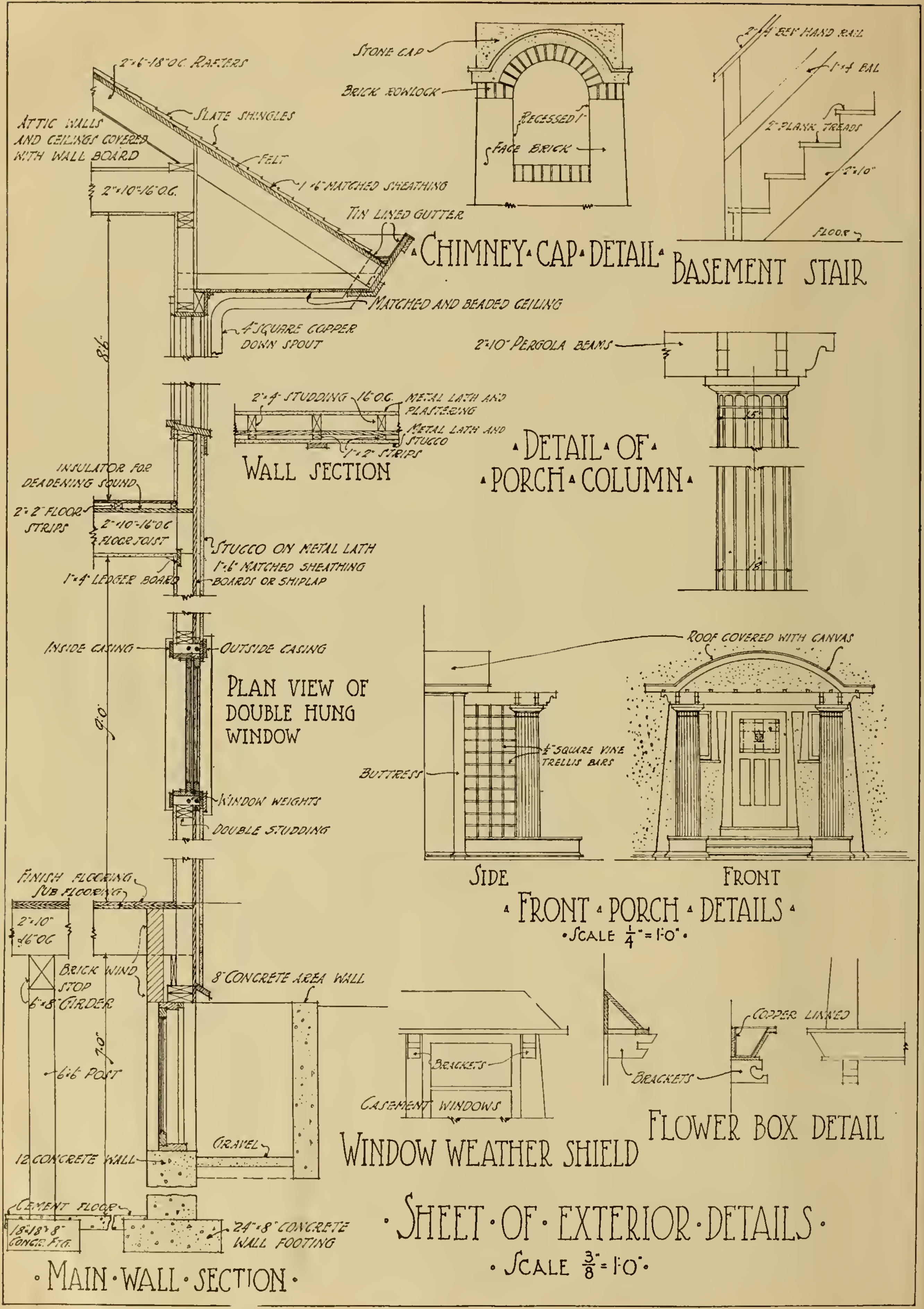


DRESSER SECTION BOOKCASE

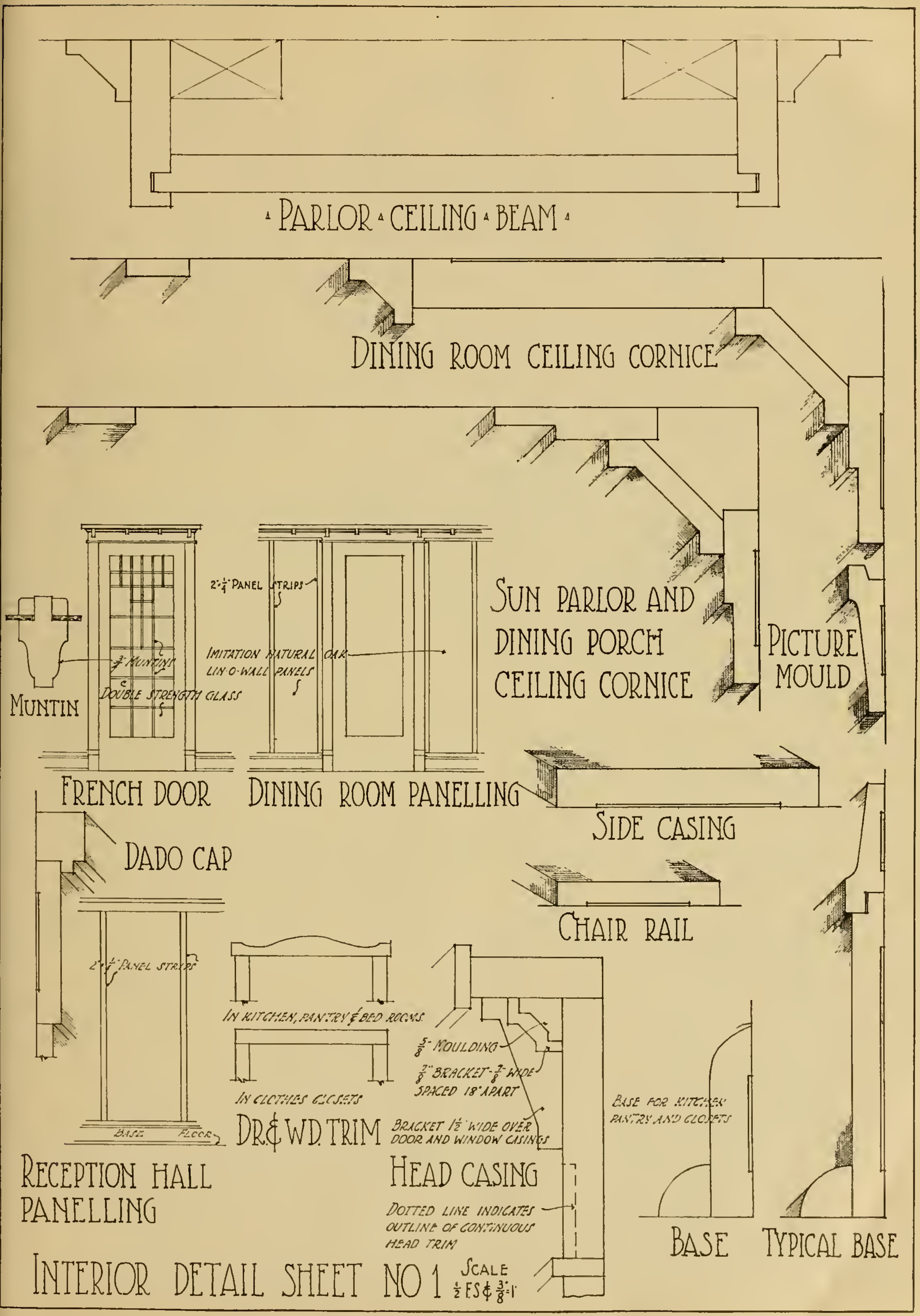
Kitchen Dresser on One Side of Partition, Library Book Case on Other.



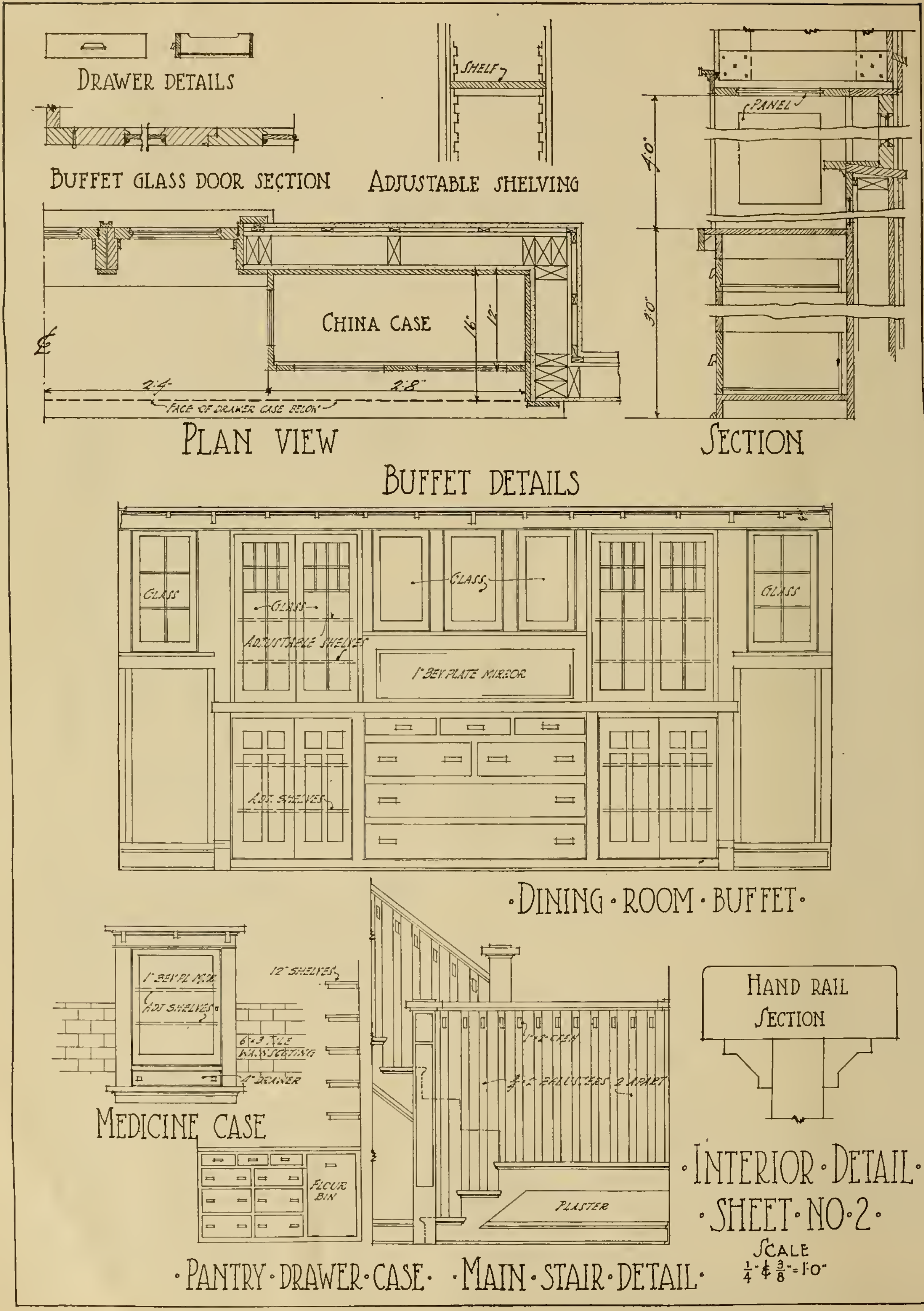
Details of Interior Finish of Brick and Stucco Finished Tile House.



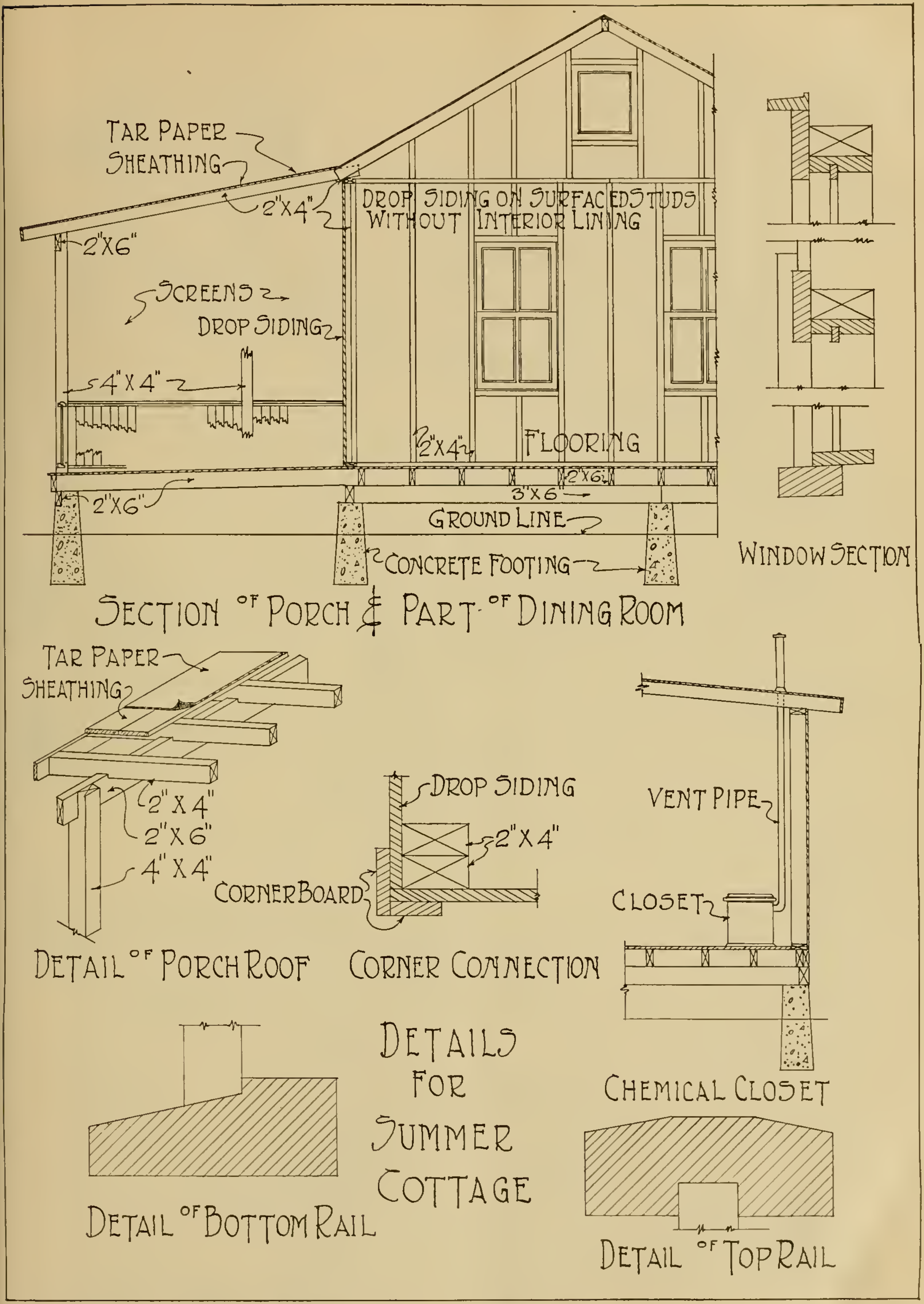
Exterior Details of Construction, to Scale, of Cement Plaster Residence.


PARLOR CEILING BEAM
DINING ROOM CEILING CORNICE
SUN PARLOR AND DINING PORCH CEILING CORNICE
PICTURE MOULD
MUNTIN
¾" MUNTINS
DOUBLE STRENGTH GLASS
FRENCH DOOR
2-¼" PANEL STRIPS
IMITATION NATURAL OAK LIN-O-WALL PANELS
DINING ROOM PANELLING
SIDE CASING
DADO CAP
CHAIR RAIL
2-¼" PANEL STRIPS
BASE
FLOOR
RECEPTION HALL PANELLING
IN KITCHEN, PANTRY & BED ROOMS
IN CLOTHES CLOSETS
DR. & WD. TRIM
⅝" MOULDING
⅞" BRACKET-⅞" WIDE SPACED 18" APART
BRACKET 1½" WIDE OVER DOOR AND WINDOW CASINGS
HEAD CASING
DOTTED LINE INDICATES OUTLINE OF CONTINUOUS HEAD TRIM
BASE FOR KITCHEN PANTRY AND CLOSETS
BASE
TYPICAL BASE
INTERIOR DETAIL SHEET NO 1
SCALE ½ F.S. & ⅜"=1'

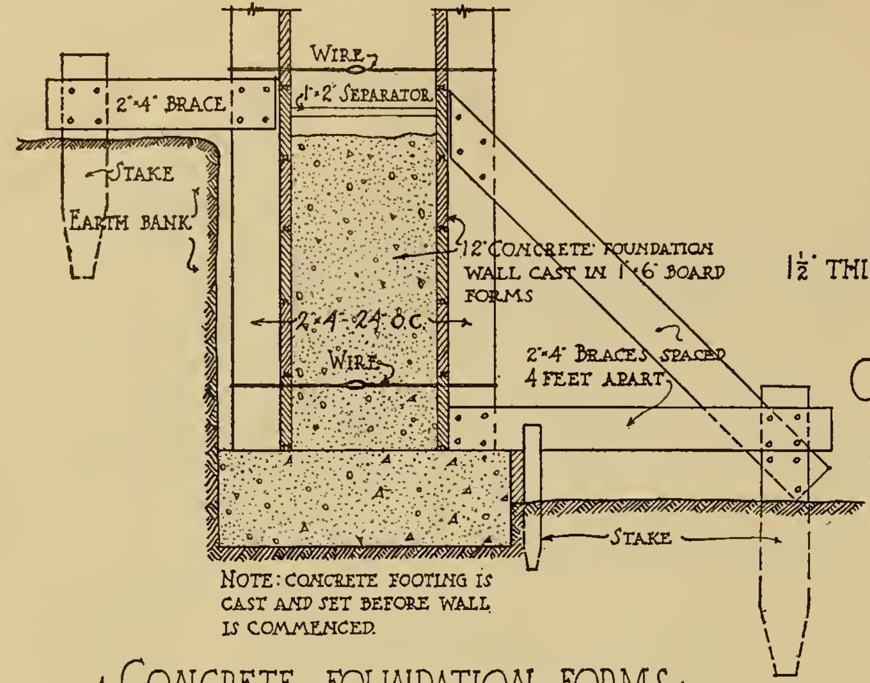
Details of Interior Finish, to Scale, for Cement Plaster Residence.



Additional Details of Interior Finish, to Scale, for Cement Stucco Residence (See Pages 70 and 71.)



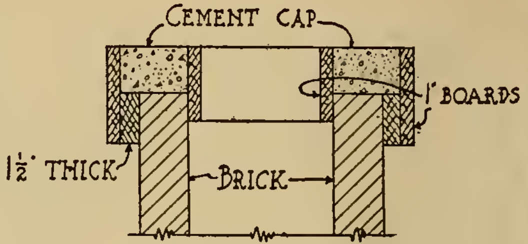
Structural Details of Frame Cottage Representative of the Type of Construction Most Commonly Used in Frame Summer Cottages.


WIRE
2"×4" BRACE
1"×2" SEPARATOR
STAKE
EARTH BANK
12" CONCRETE FOUNDATION WALL CAST IN 1"×6" BOARD FORMS
2"×4"-24" O.C.
WIRE
2"×4" BRACES SPACED 4 FEET APART
STAKE

NOTE: CONCRETE FOOTING IS CAST AND SET BEFORE WALL IS COMMENCED.

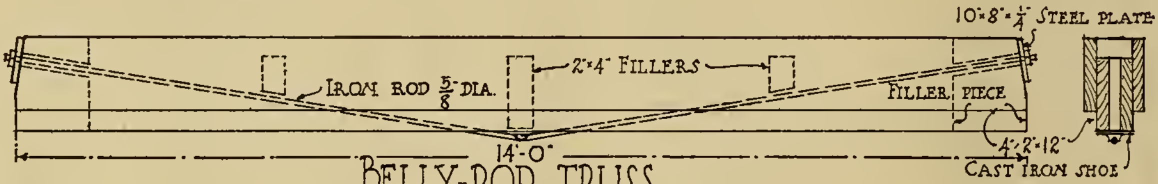
CONCRETE FOUNDATION FORMS

3/4" EQUALS 1'-0"



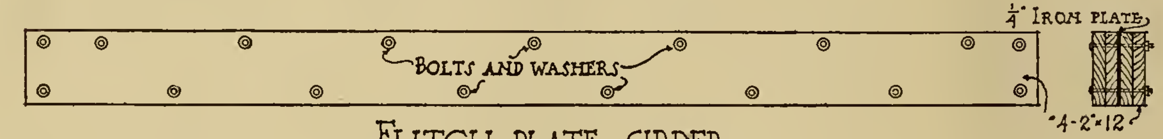
CEMENT CHIMNEY CAP

SHOWING METHOD OF CASTING SAME IN PLACE



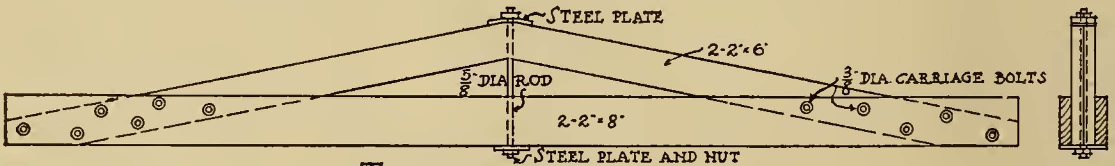
BELLY-ROD TRUSS

GIRDER FOR FRONT PORCH



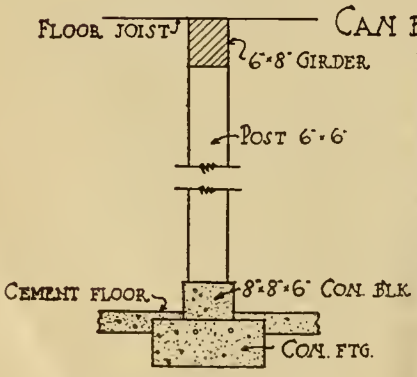
FLITCH-PLATE GIRDER

CAN BE SUBSTITUTED FOR BELLY-ROD TRUSS GIRDER

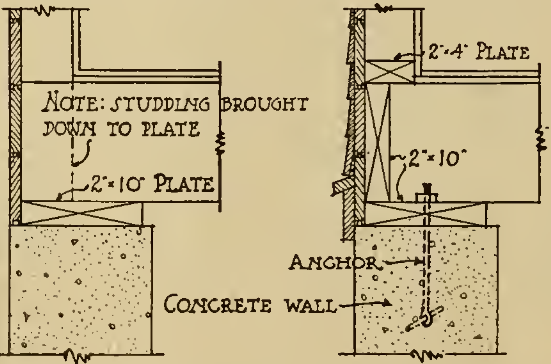


TRUSSED GIRDER SCALE 3/8"-1 FOOT

CAN BE USED IN LIEU OF EITHER OF ABOVE GIRDER DESIGNS



BASEMENT POSTS

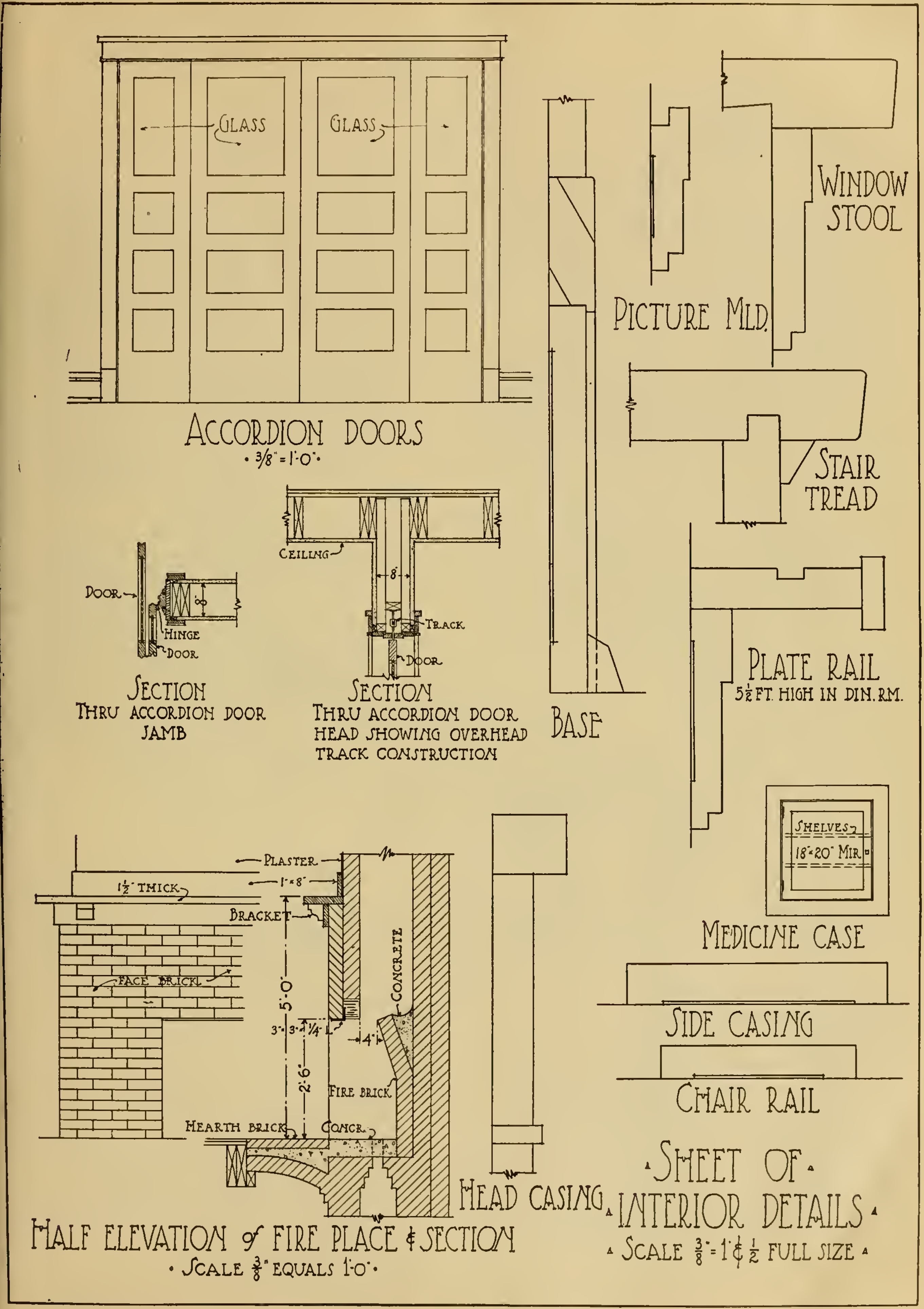


FOUNDATION WALL PLATES

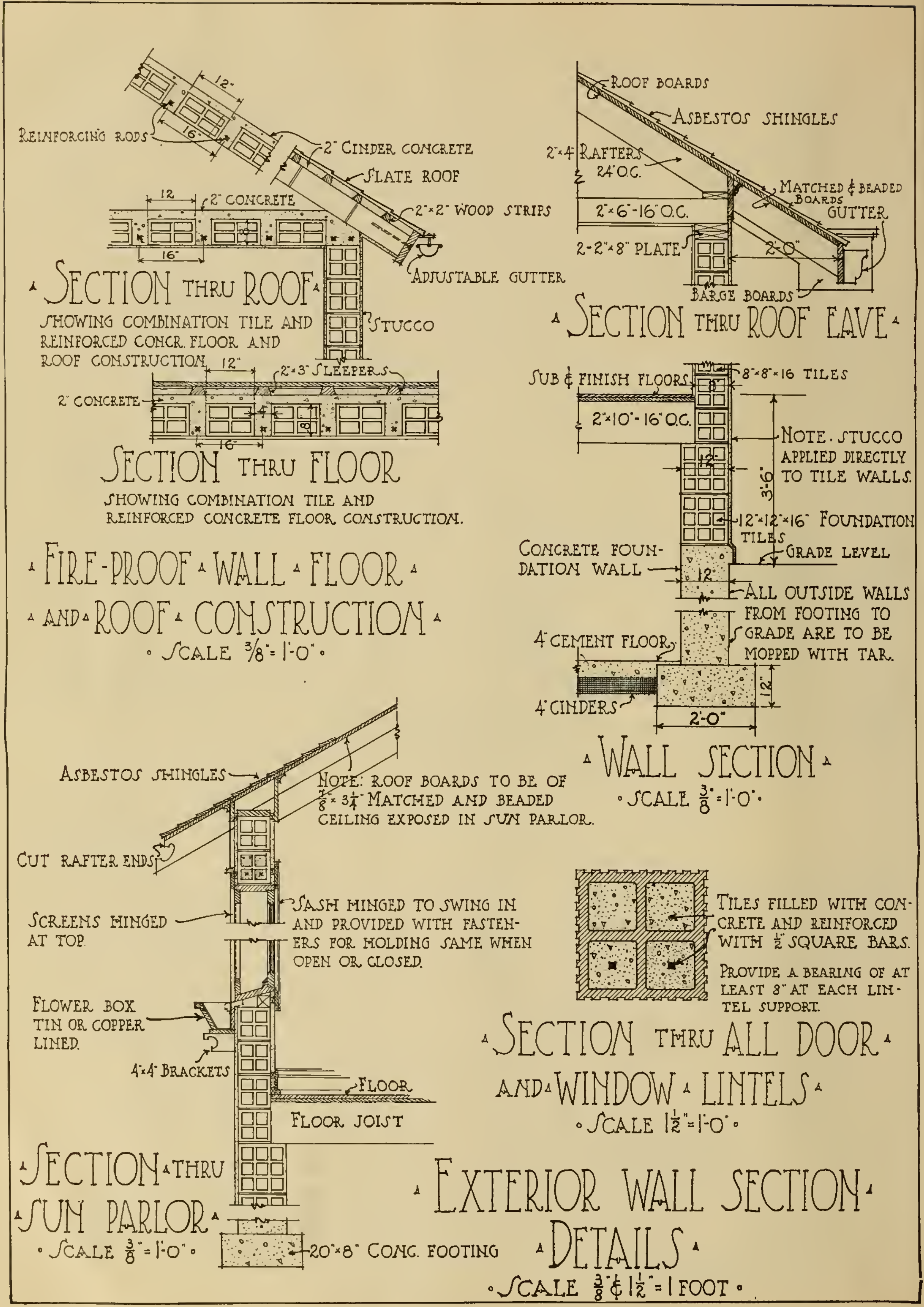
SHEET of EXTERIOR DETAILS

SCALE ¾" & ⅜" = 1 FOOT

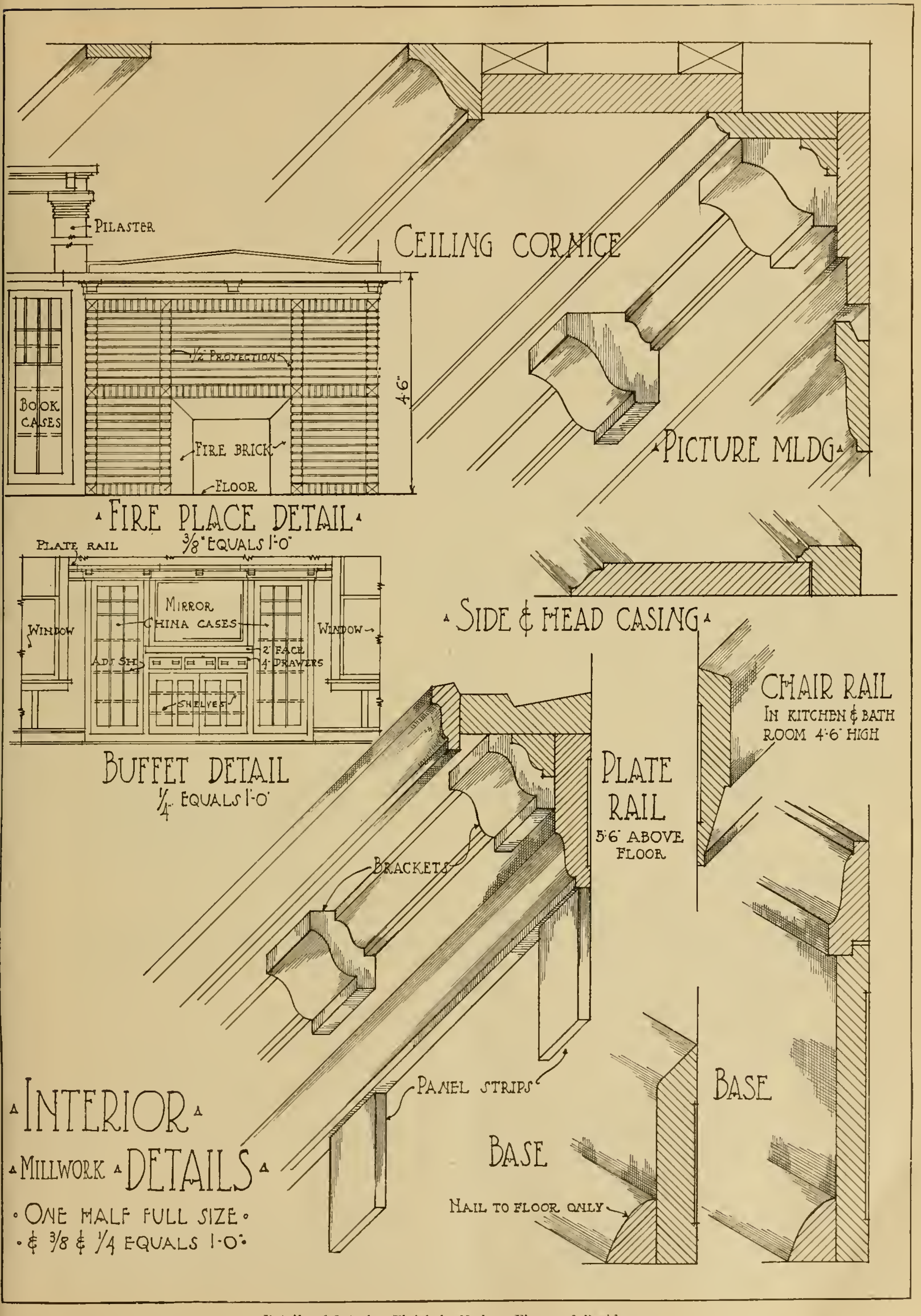
Construction Details of Prize Farm House.



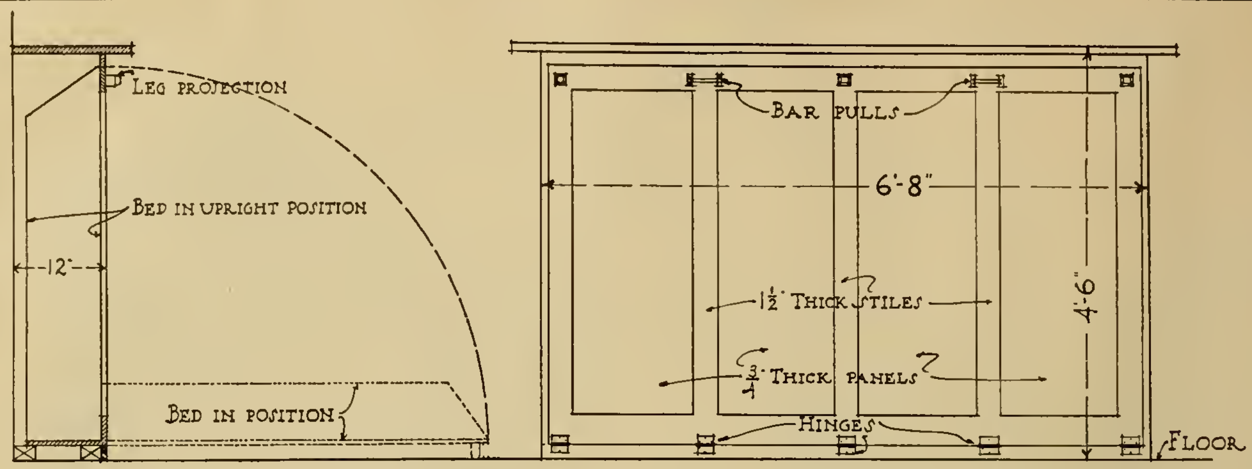
Interior Details of Prize Farm House.


REINFORCING RODS
12"
16"
2" CINDER CONCRETE
SLATE ROOF
12
2" CONCRETE
2"×2" WOOD STRIPS
16"
ADJUSTABLE GUTTER
STUCCO
SECTION THRU ROOF
SHOWING COMBINATION TILE AND REINFORCED CONCR. FLOOR AND ROOF CONSTRUCTION
12"
2"×3" SLEEPERS
2" CONCRETE
16"
SECTION THRU FLOOR
SHOWING COMBINATION TILE AND REINFORCED CONCRETE FLOOR CONSTRUCTION.
FIRE-PROOF WALL FLOOR AND ROOF CONSTRUCTION
SCALE 3/8"=1'-0"
ROOF BOARDS
ASBESTOS SHINGLES
2"×4" RAFTERS 24" O.C.
MATCHED & BEADED BOARDS
GUTTER
2"×6"-16" O.C.
2-2"×8" PLATE
2'-0"
BARGE BOARDS
SECTION THRU ROOF EAVE
SUB & FINISH FLOORS
8"×8"×16 TILES
2"×10"-16" O.C.
NOTE. STUCCO APPLIED DIRECTLY TO TILE WALLS.
12"
3'-6"
12"×12"×16" FOUNDATION TILES
GRADE LEVEL
CONCRETE FOUNDATION WALL
12"
ALL OUTSIDE WALLS FROM FOOTING TO GRADE ARE TO BE MOPPED WITH TAR.
4" CEMENT FLOOR
12"
4" CINDERS
2'-0"
WALL SECTION
SCALE 3/8"=1'-0"
ASBESTOS SHINGLES
NOTE: ROOF BOARDS TO BE OF 7/8"×3¼" MATCHED AND BEADED CEILING EXPOSED IN SUN PARLOR.
CUT RAFTER ENDS
SCREENS HINGED AT TOP
SASH HINGED TO SWING IN AND PROVIDED WITH FASTENERS FOR HOLDING SAME WHEN OPEN OR CLOSED.
FLOWER BOX TIN OR COPPER LINED.
4"×4" BRACKETS
FLOOR
FLOOR JOIST
SECTION THRU SUN PARLOR
SCALE 3/8"=1'-0"
20"×8" CONC. FOOTING
TILES FILLED WITH CONCRETE AND REINFORCED WITH ½" SQUARE BARS.
PROVIDE A BEARING OF AT LEAST 8" AT EACH LINTEL SUPPORT.
SECTION THRU ALL DOOR AND WINDOW LINTELS
SCALE 1½"=1'-0"
EXTERIOR WALL SECTION DETAILS
SCALE 3/8" & 1½"=1 FOOT

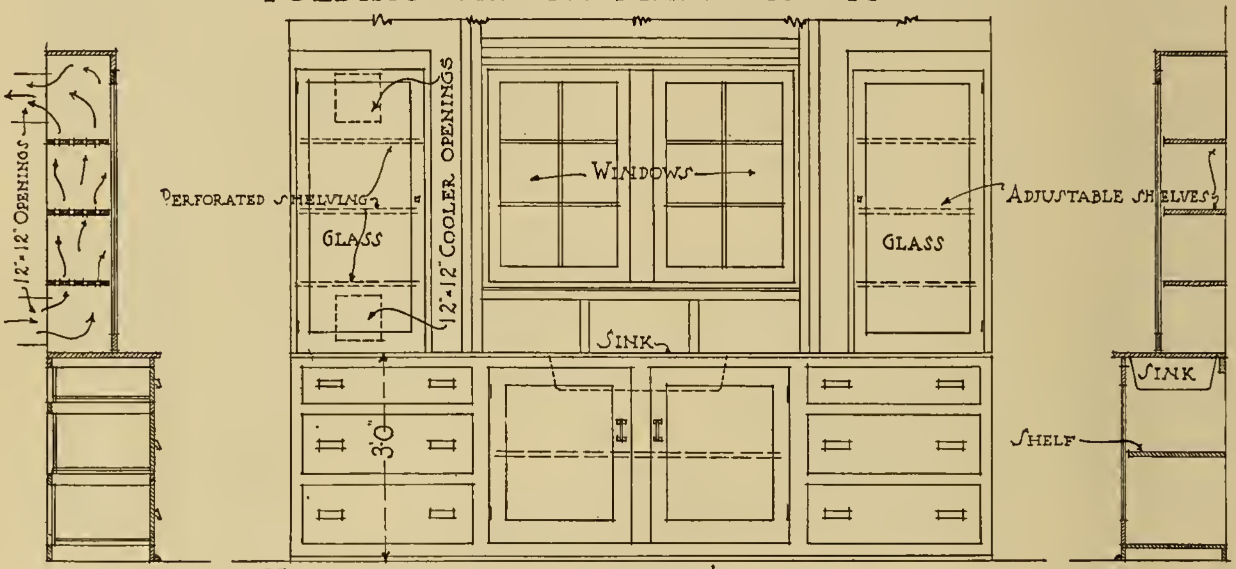
Construction Details of Hollow Tile Residence.



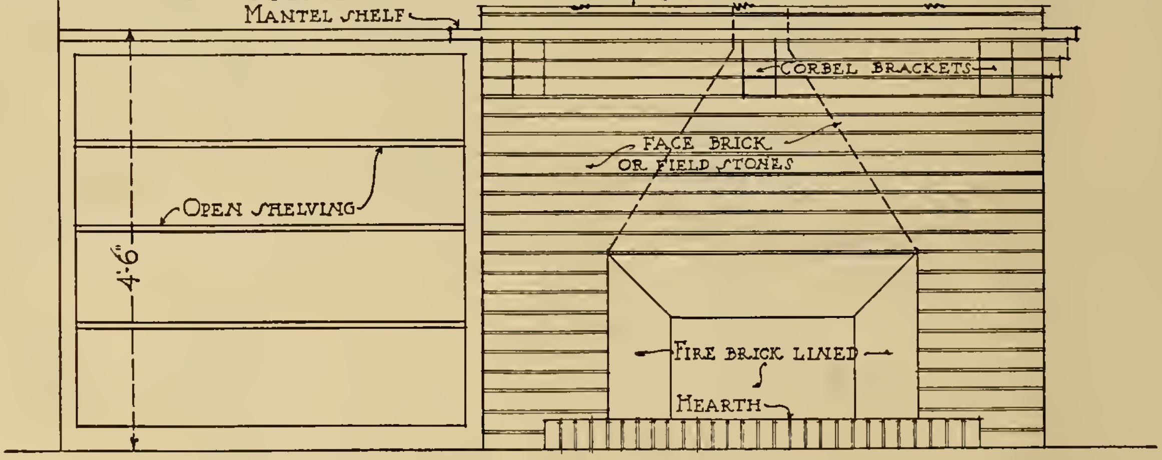
Details of Interior Finish in Modern Fireproof Residence.



FOLDING BED IN DINING ROOM SCALE 1" EQUALS 1'-0"



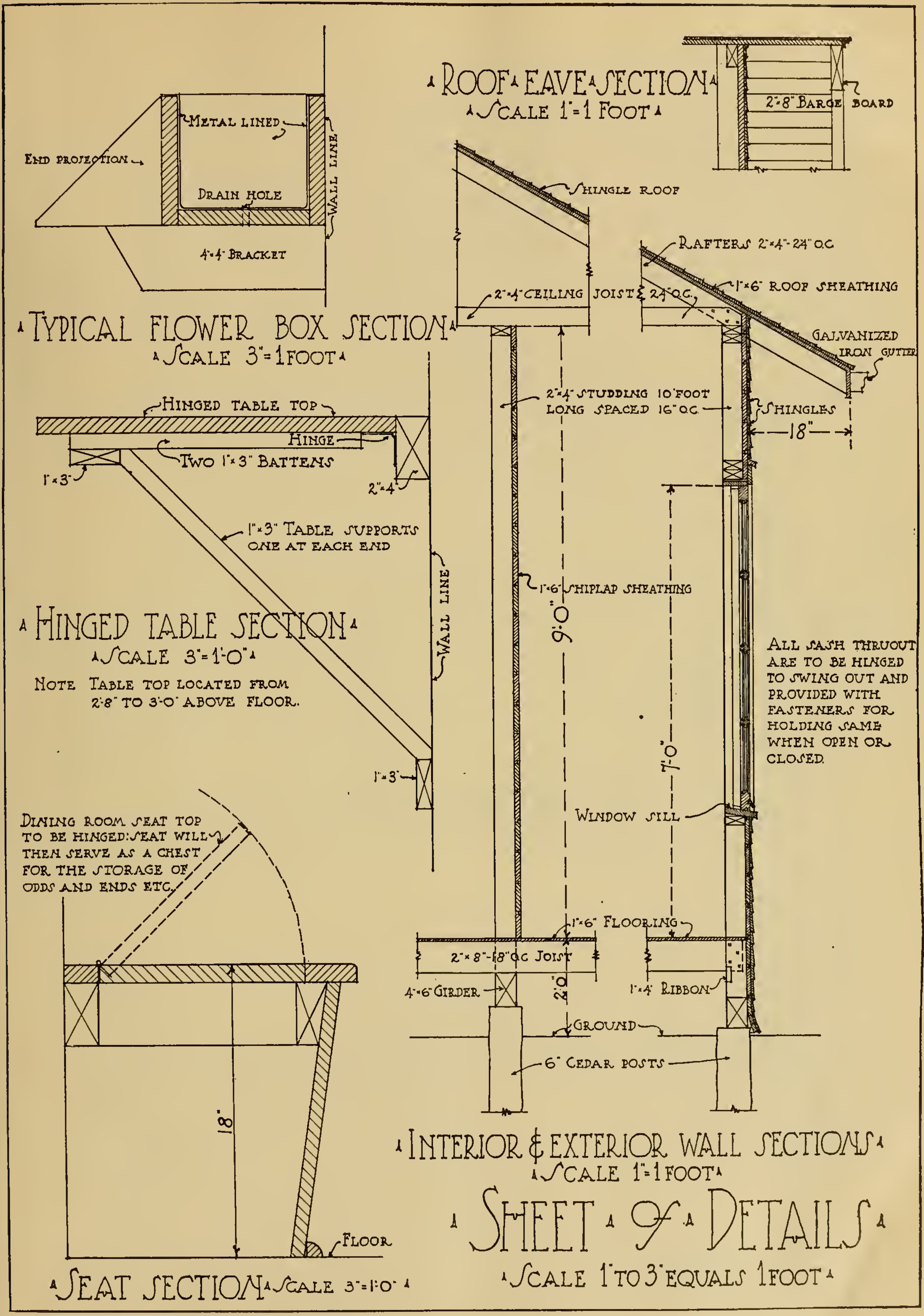
COOLER SECTION KITCHEN COOLER SINK & CUPBOARD ELEV CUPBOARD SECTION



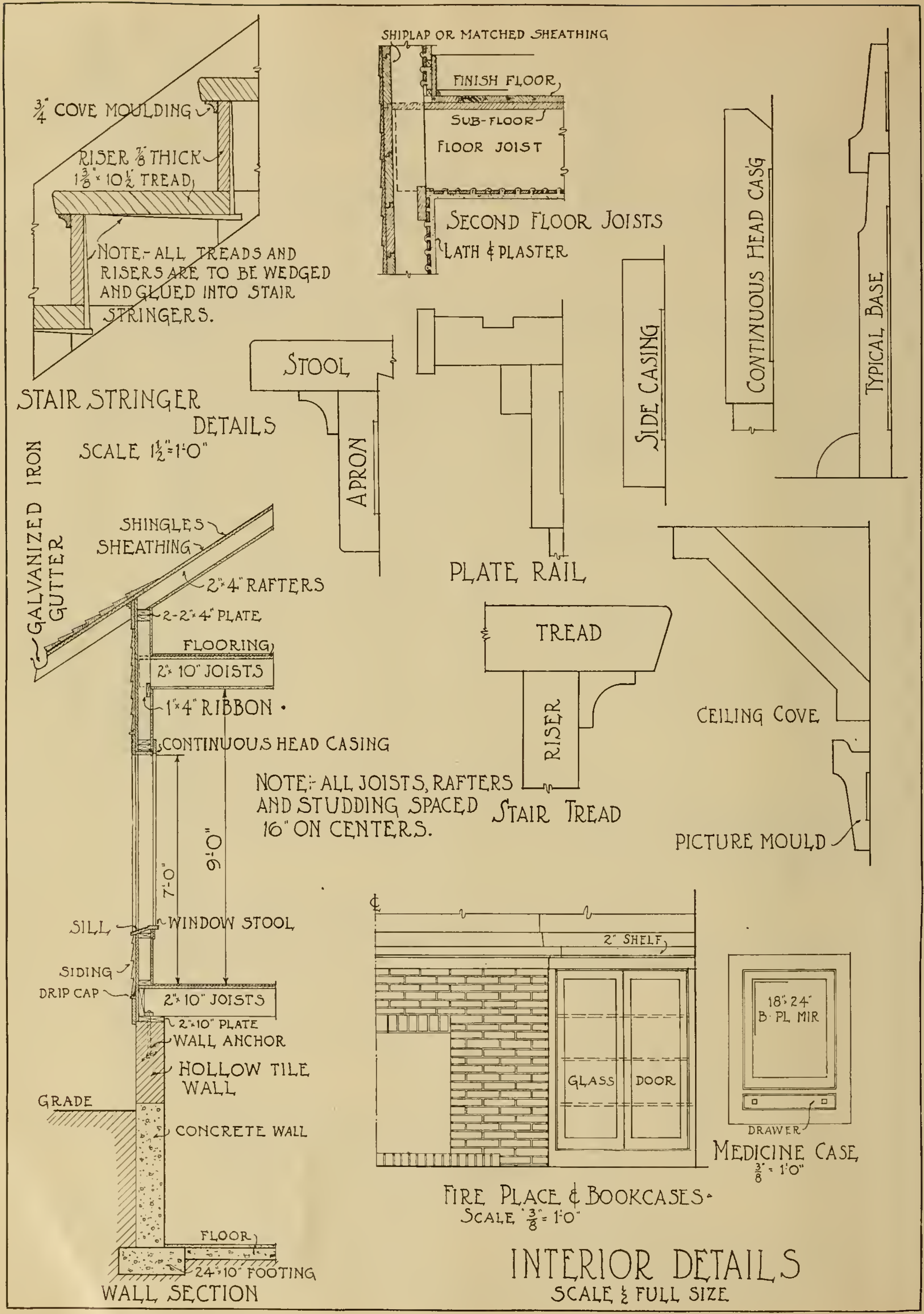
LIVING ROOM BOOK CASE & FIRE PLACE
SCALE 1" EQUALS 1'-0"

SHEET OF DETAILS
SCALE ¾" TO 1" EQUALS 1 FOOT

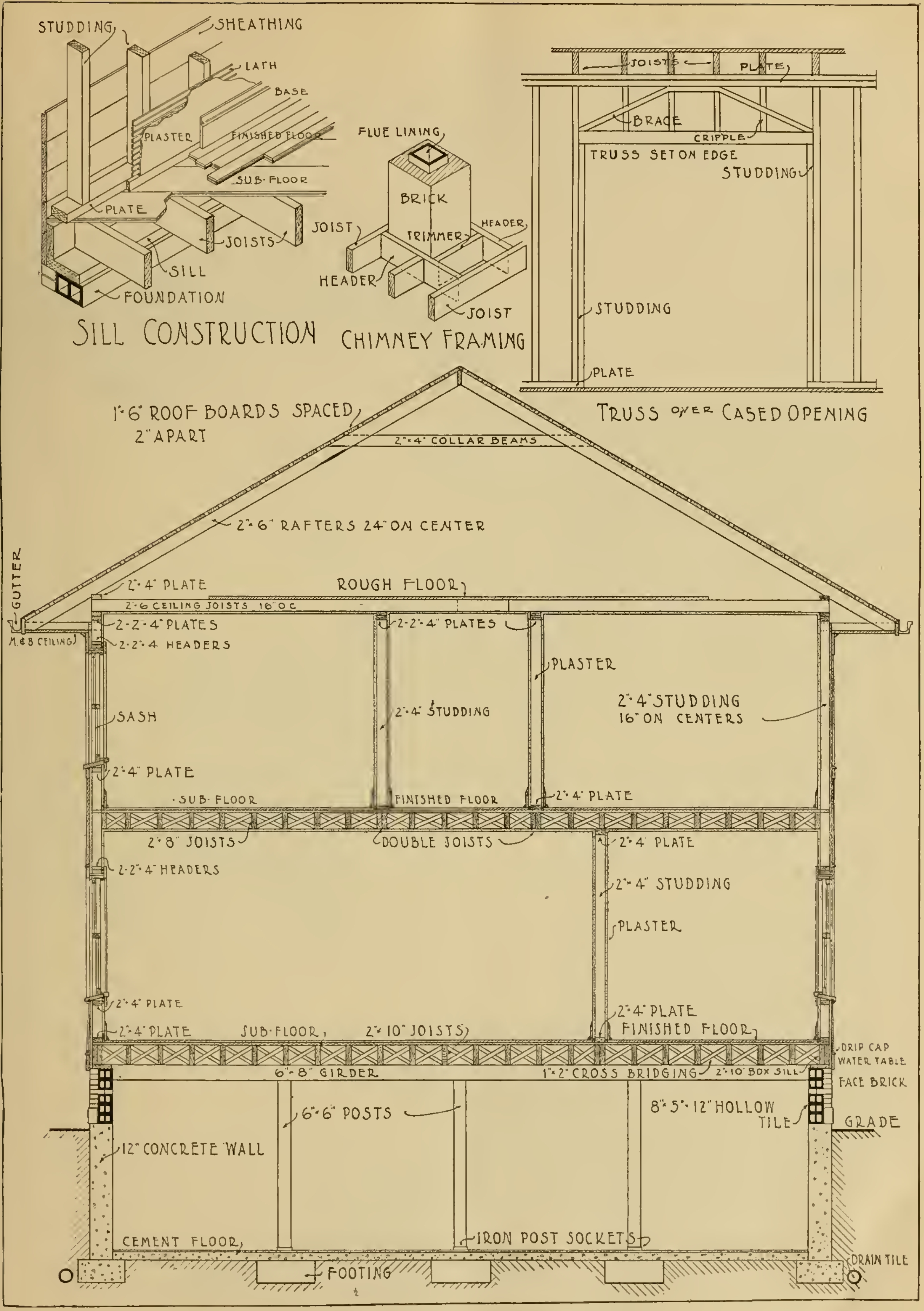
Details of Interior Finish of Summer Bungalow.


End projection
Metal lined
Drain hole
Wall line
4"×4" Bracket
Typical Flower Box Section
Scale 3"=1 Foot
Roof Eave Section
Scale 1"=1 Foot
2"×8" Barge board
Shingle roof
Rafters 2"×4"-24" o.c.
2"×4" ceiling joist 24" o.c.
1"×6" roof sheathing
Galvanized iron gutter
Hinged table top
Hinge
Two 1"×3" battens
1"×3"
2"×4"
1"×3" Table supports one at each end
Wall line
Hinged Table Section
Scale 3"=1'-0"
Note Table top located from 2'-8" to 3'-0" above floor.
2"×4" studding 10 foot long spaced 16" o.c.
Shingles
18"
1"×6" shiplap sheathing
9'-0"
All sash thruout are to be hinged to swing out and provided with fasteners for holding same when open or closed.
7'-0"
Window sill
1"×3"
Dining room seat top to be hinged: seat will then serve as a chest for the storage of odds and ends etc.
1"×6" Flooring
2"×8"-18" o.c. Joist
4"×6" Girder
2'-0"
1"×4" Ribbon
Ground
6" Cedar posts
18"
Floor
Seat Section Scale 3"=1'-0"
Interior & Exterior Wall Sections
Scale 1"=1 Foot
Sheet of Details
Scale 1" to 3" equals 1 Foot

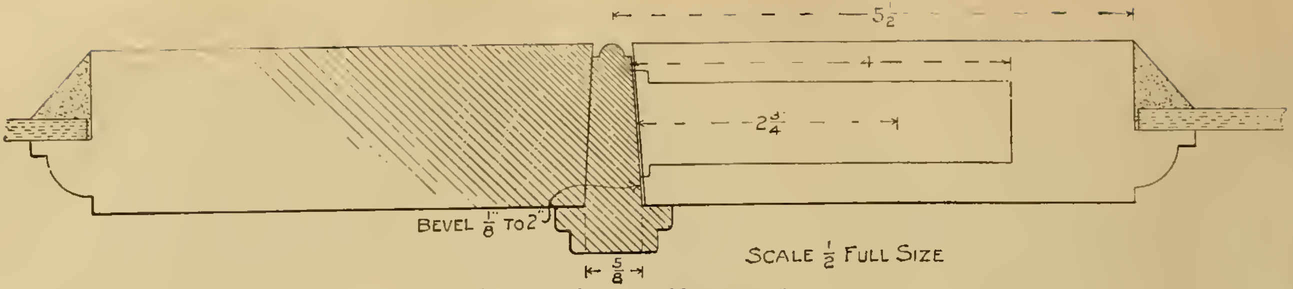
Details of Construction of Summer Bungalow.



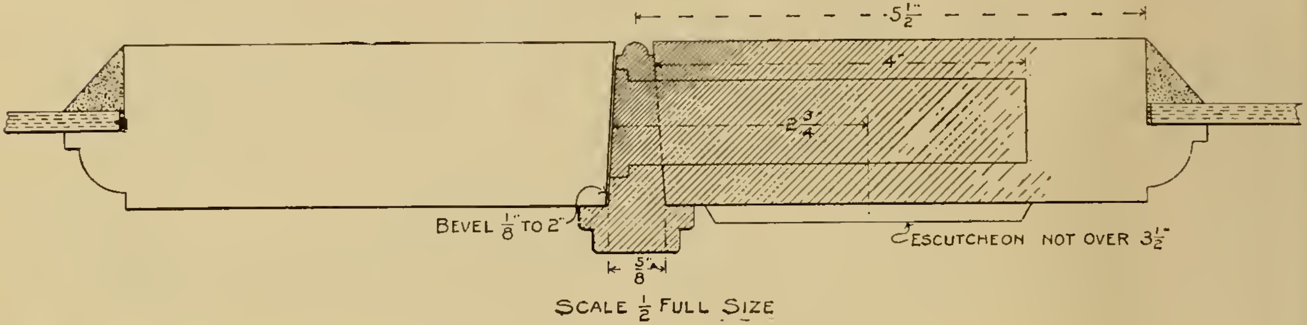
Details of Inside Trim and of Construction Used in Model Nine-Room Farm House.



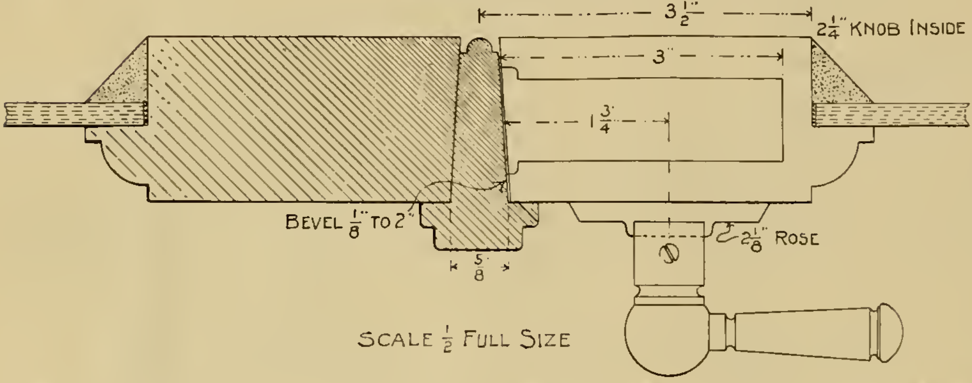
Construction Details of Modern Farm House of Frame.



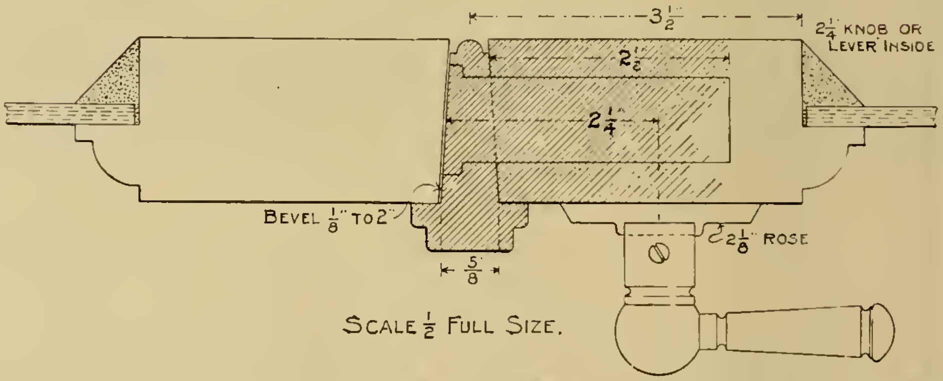
Detail of 1¾-inch Double Door, Open In.



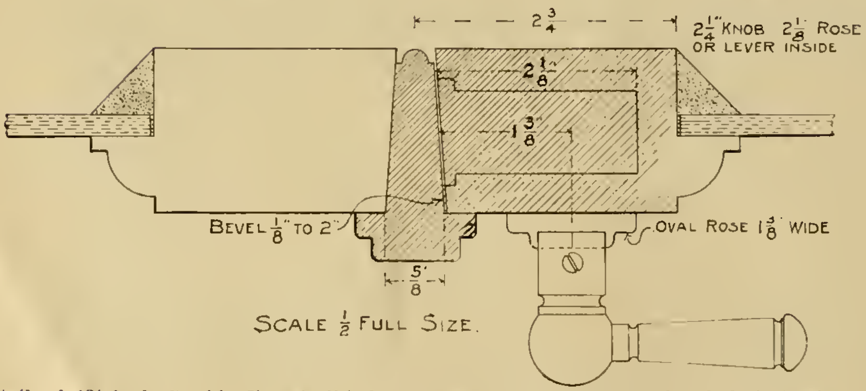
Detail of 1¾-inch Double Door, Open Out.



Detail of 1¾-Inch Double Door, Open In, on Which the Narrowest Cylinder Front Door Lock Can be Used.

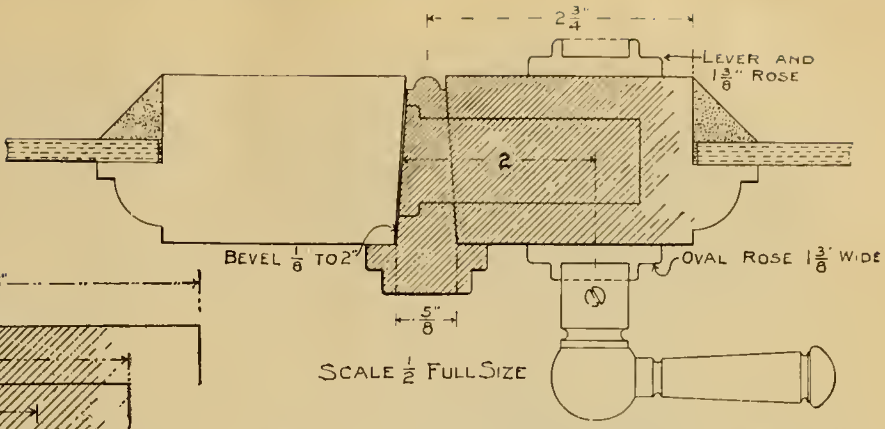


Detail of 1¾-Inch Double Door, Open Out, on Which the Narrowest Cylinder Front Door Lock Can be Used.

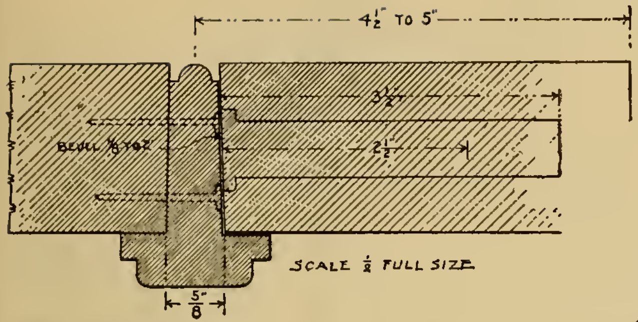


Detail of 1¾-Inch Double French Window, Open In, Bit Key or Thumb Bolt Lock.

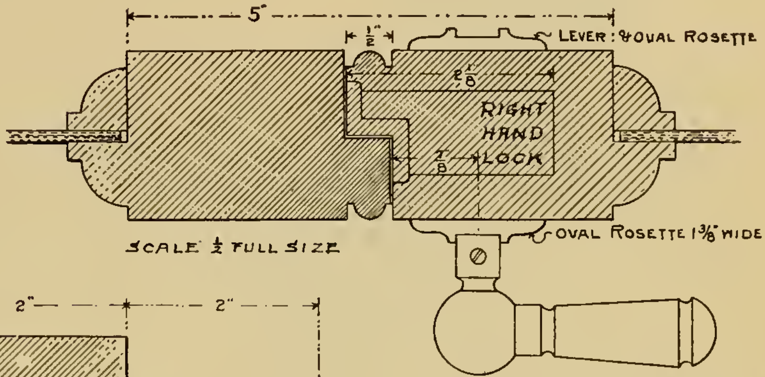
STANDARD DETAILS FOR BUILDERS' HARDWARE.



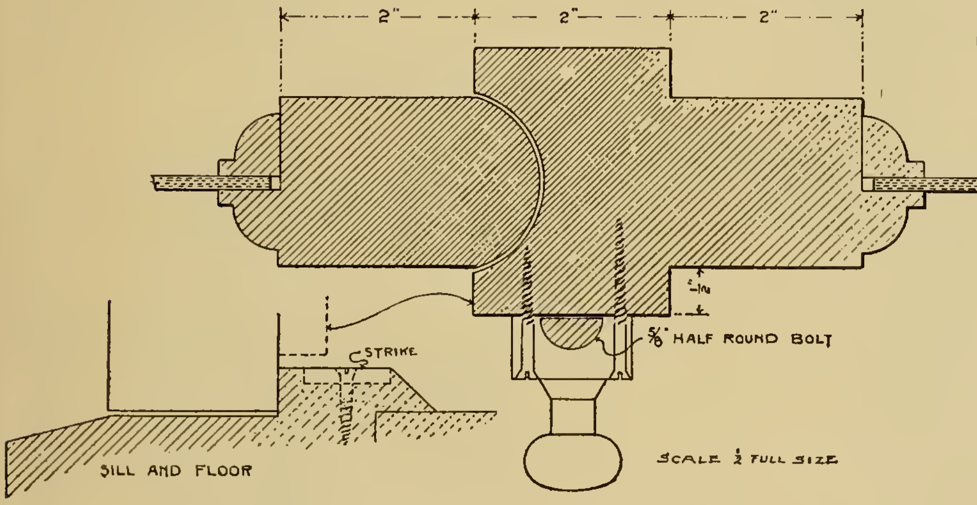
Detail of 1¾-Inch Double French Window, Open Out, Bit Key or Thumb Bolt Lock.



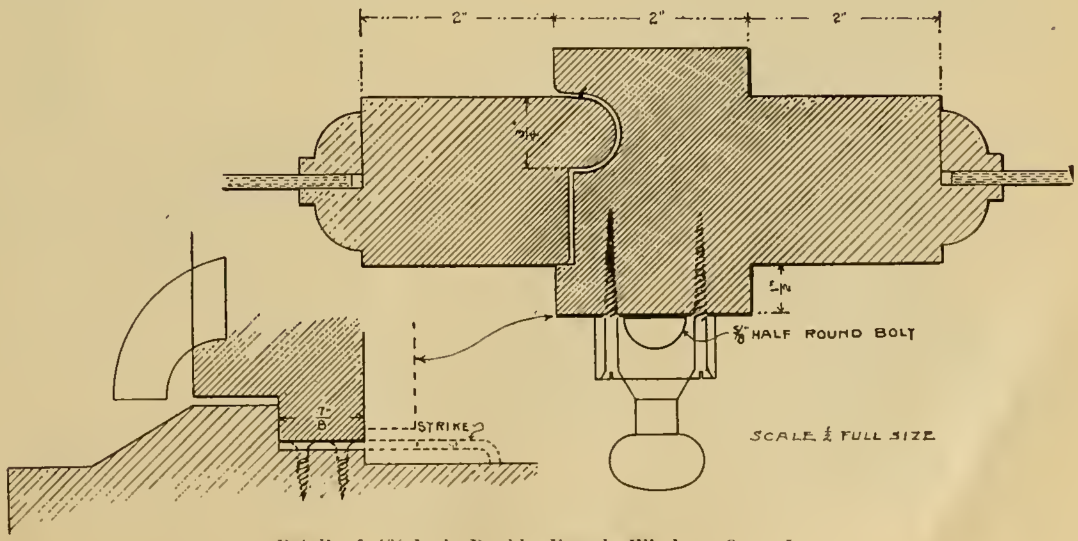
Detail of 1¾-Inch Double Door on Which Regular 3½-Inch Inside Lock is Used.



Detail of 1¾-Inch Double French Window Having Rabbeted Lock, with Bit Key or Thumb Bolt.

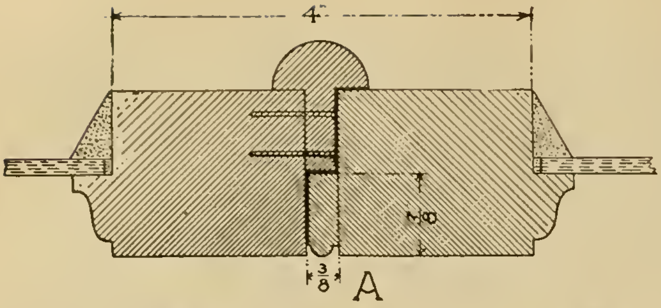


Detail of 1¾-Inch Double French Window, Opening Out.

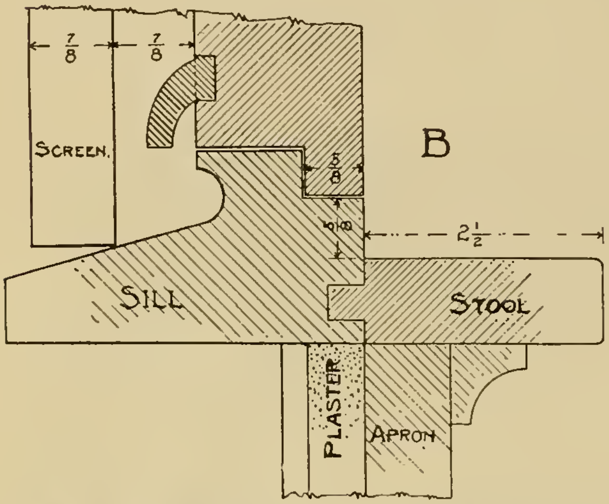


Detail of 1¾-Inch Double French Window, Open In.

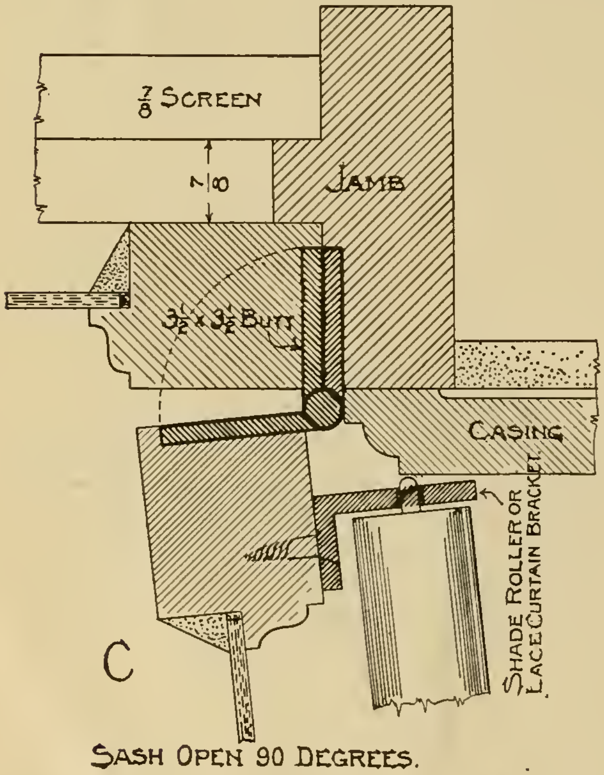
STANDARD DETAILS FOR BUILDERS' HARDWARE.



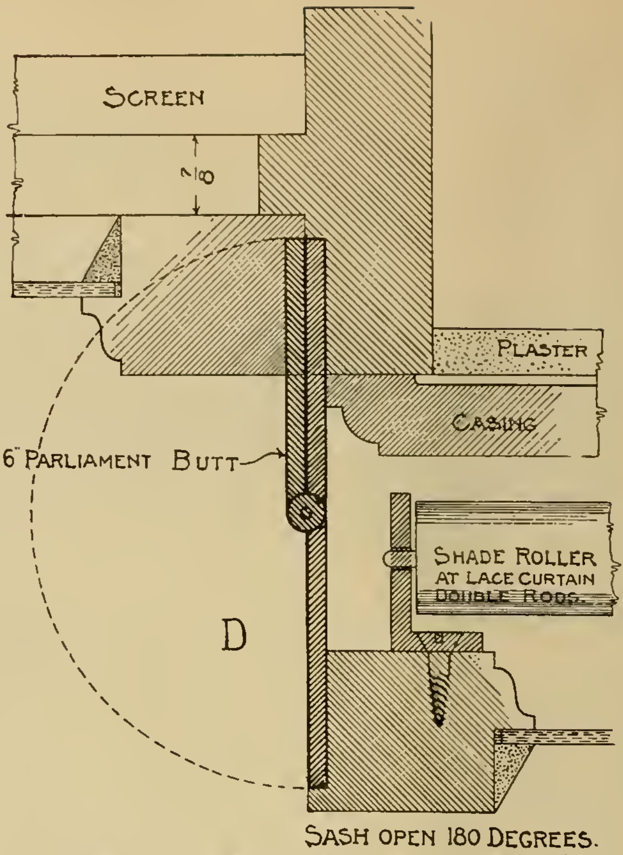
Section Thru Meeting Rails of Pair of Inward Opening Casements. Note T-Astragal on Outside to Keep Out the Rain.



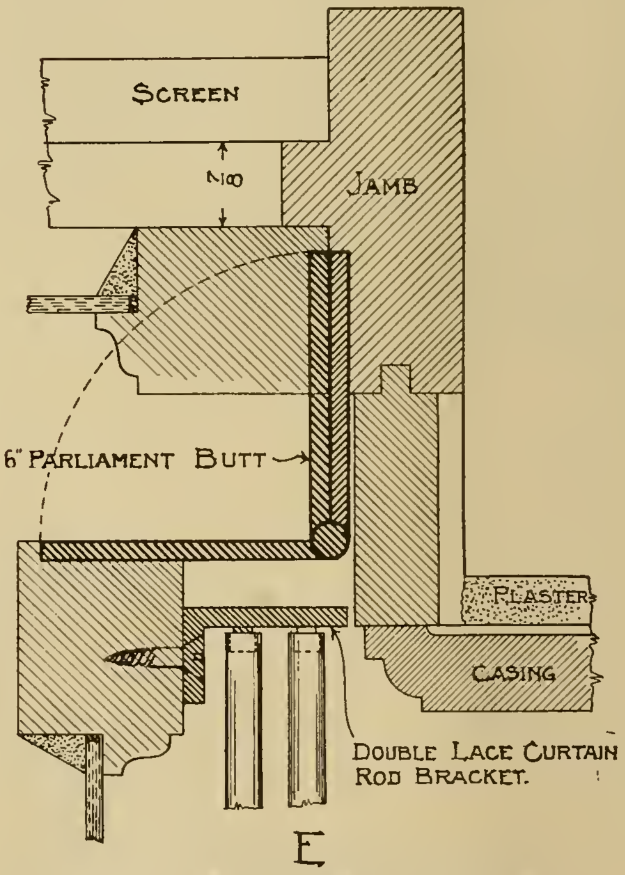
Section Thru Sill—Warranted Proof Even Against Driving Rain. Note That Standard Flush Bolt Requires Sill Rabbet to be at Least ⅝ Inch.



Section Thru Window Jamb, Flush with Plaster.

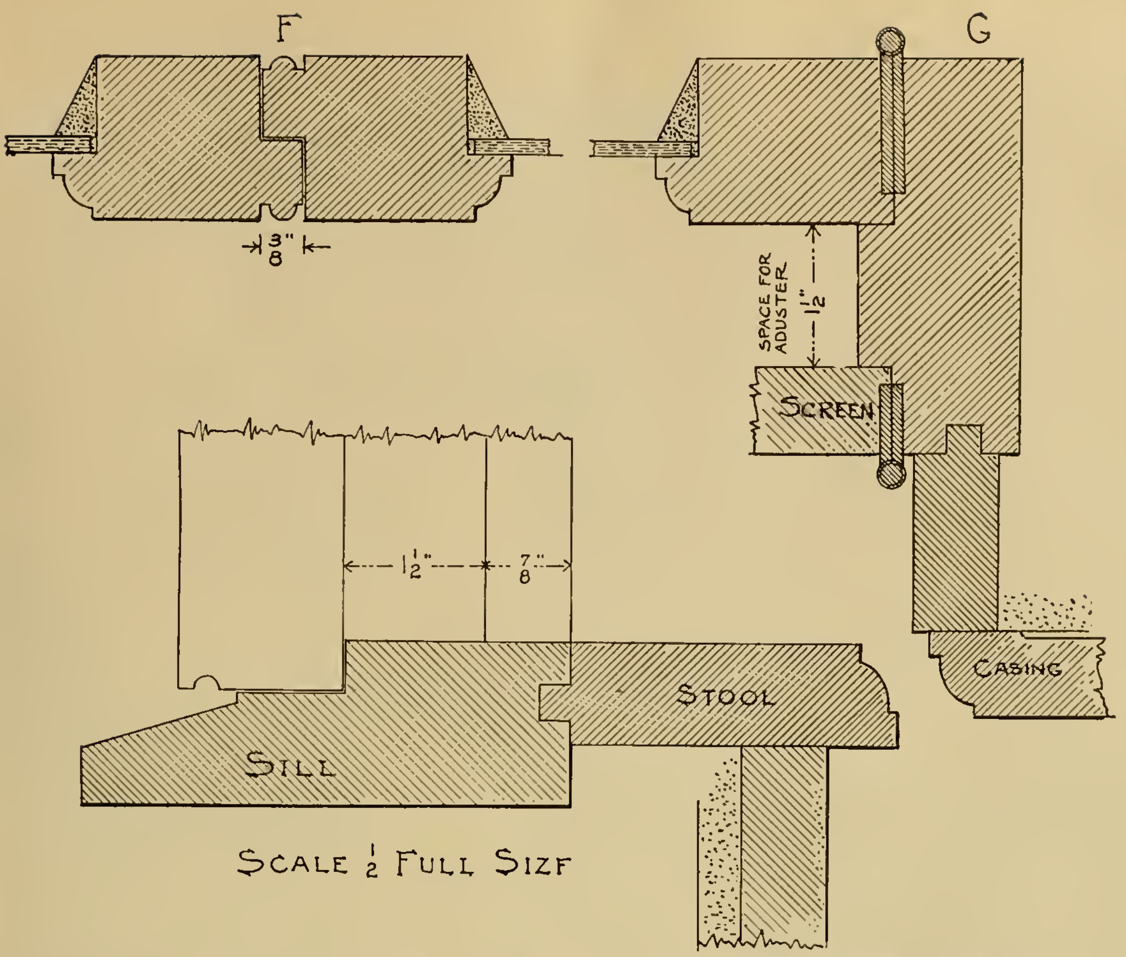


Section Thru Window Jamb—Use of 6-Inch Parliament Butts Permits Opening 180 Degrees.



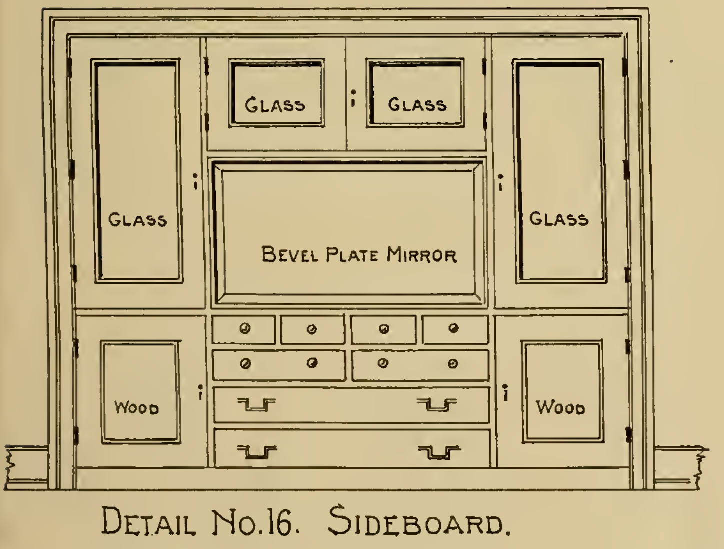
Section Thru Recessed Jamb—Use of 6-Inch Parliament Butts Gives Room for Curtain Rod Brackets.

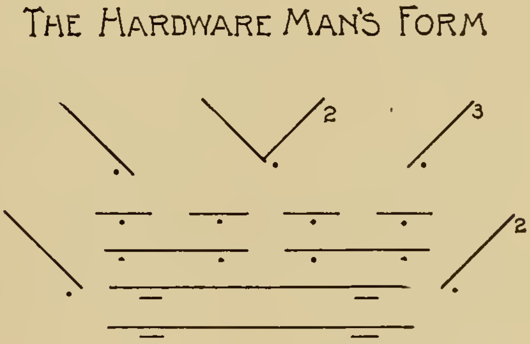
Details of Inward Opening Casements. All Details Half Full Size.



STANDARD DETAIL FOR OPEN OUT CASEMENT WINDOWS

"F," Section Thru Meeting Rails of Double Casements, Showing ⅜ Inch Rabbet to Fit Standard Mortise Turnbuckle. "G," Section Thru Jamb, Showing 1½ Inch Space Necessary for Standard Adjusters.





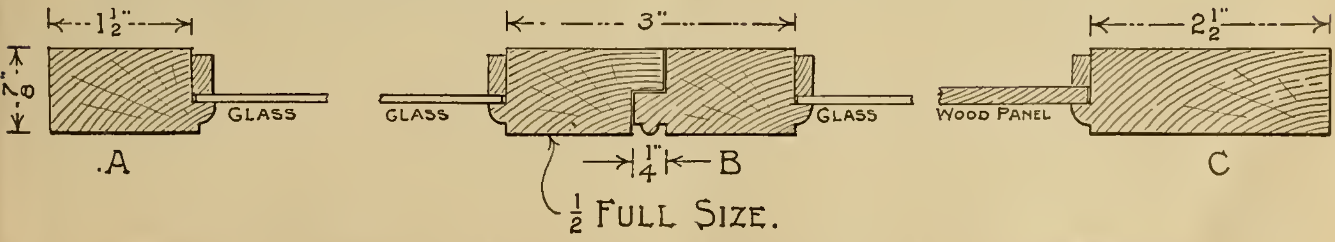
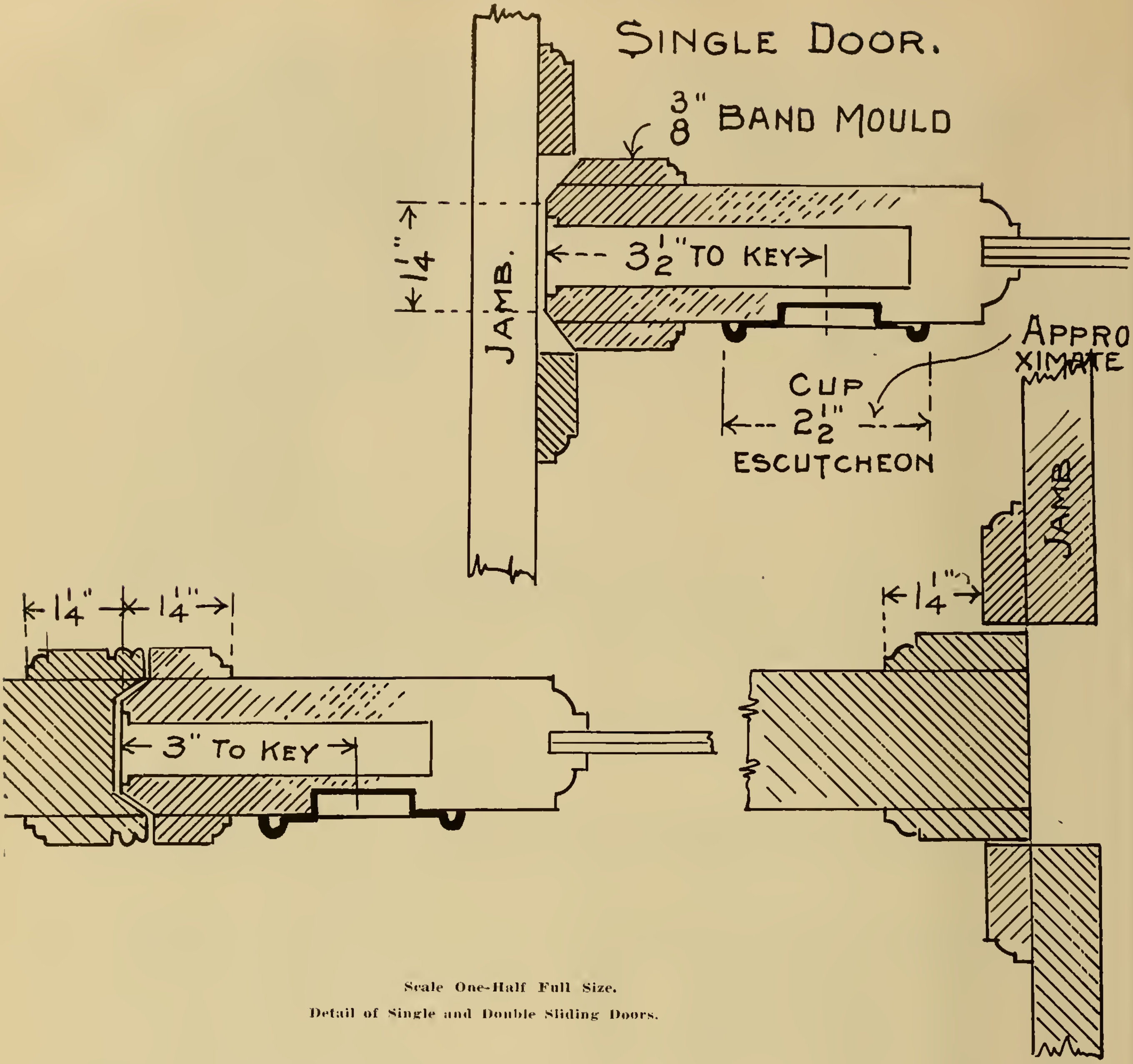


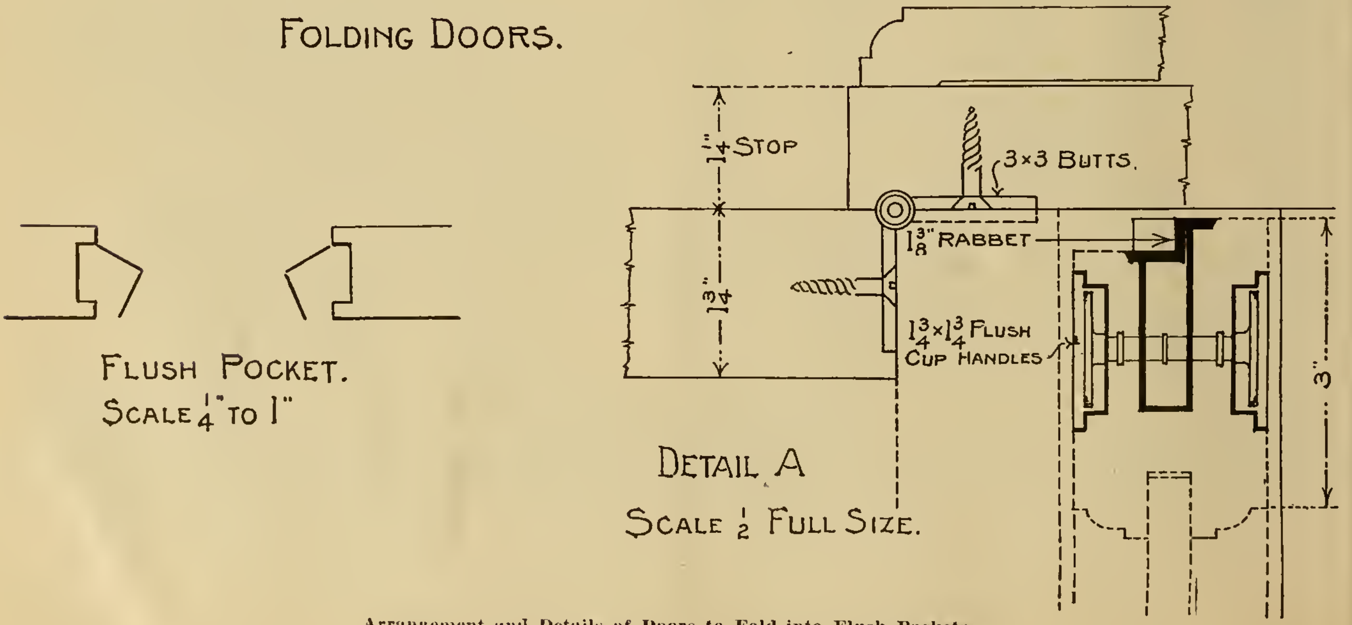
Diagram Illustrating Correct Detailing for Sideboard, and Hardware Trimmer's Short Hand Form for Listing Hardware Items.

STANDARD DETAILS FOR BUILDERS' HARDWARE.

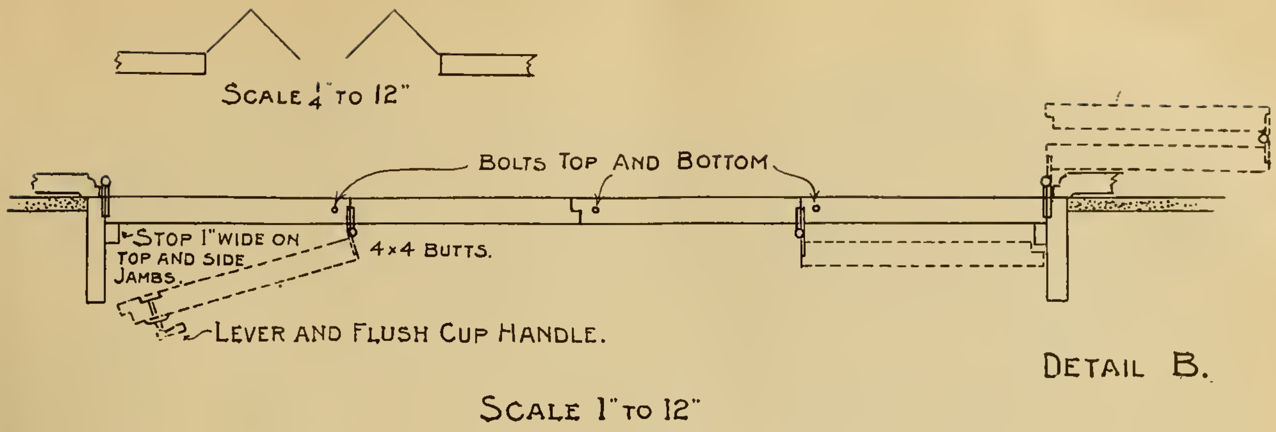


Scale One-Half Full Size.

Detail of Single and Double Sliding Doors.



Arrangement and Details of Doors to Fold into Flush Pockets.



Arrangement for Accordion or Four Fold Doors Showing Only Proper Way.

Accordion Folding Doors

THERE is nothing in the building line which puzzles the millmen, the carpenter, and the hardware man so much as accordion folding partitions.

The manufacturers of accordion hangers should treat more fully on this subject. They should place in the hands of the architects full descriptive matter, also half size or full size drawings with hardware in place. Then the architects can show the carpenter how it is done and also show the hardware man what items he has to furnish to make a perfect workmanlike job.

Doors should never be made thinner than 1¾ inches, because a lock knob and flush cup handle cannot be applied in doors thinner than 1¾ inches.

The detail below shows six full width doors and two half width doors.

Here you have a sliding door proposition because the hanging of the doors forces you to it. You must supply a hanger for the door farthest from the half door, and a hanger for every second door from this.

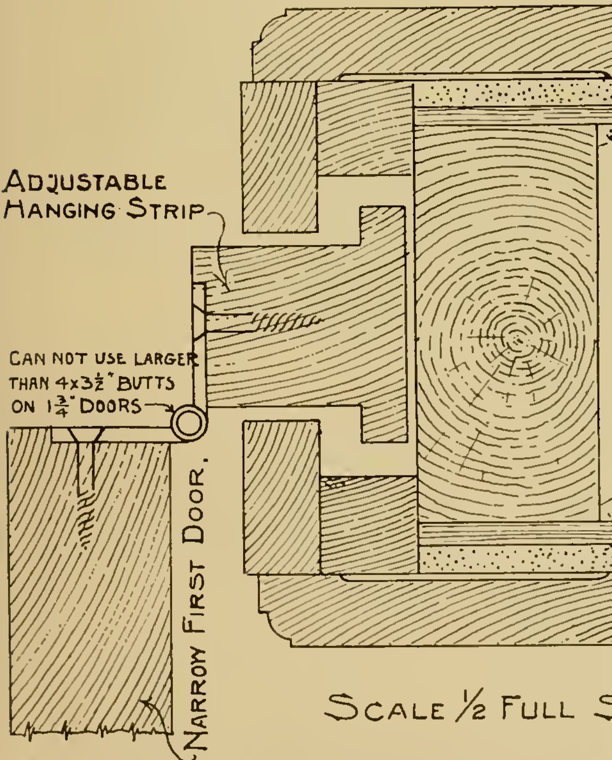
You can readily see that the track is full width of the opening. You must use a sliding door lock with the regular flush cup escutcheons. You should use four flush extension bolts at the bottom. You cannot use flush bolts at the top because you cannot apply the strikes or keepers to the top jamb; *there is a slot in the top jamb.*

You can omit the use of the bottom bolts, but it is not good practice, because the doors will buckle and you have no other method of keeping the doors rigid at the bottom when same are closed.

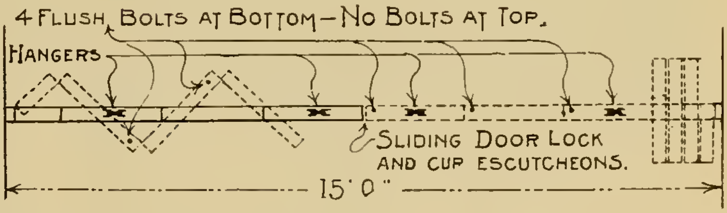
If you wish to use eight full width doors and two half width doors you must use the same number of hangers as shown in the detail, but these two extra inner doors must be treated to operate same as regular pair of hinged doors with a soffit closing up the slot in the top jamb and bolts, lock, knob and flush cup handle.

Now, to obtain a good workmanlike job of folding partition doors, the writer suggests the use of the adjustable hanging strip as shown in detail to left.

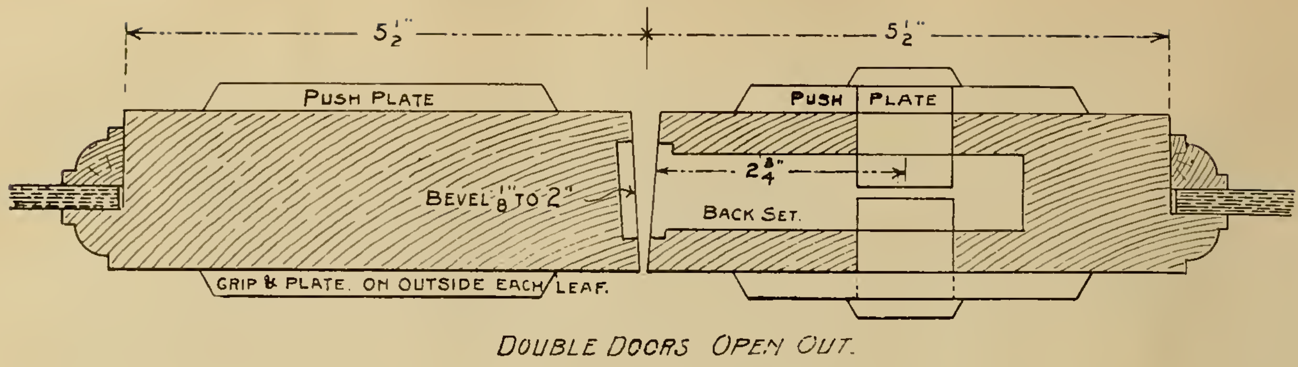
If the doors shrink the flush bolts can be shot into their keepers. All makers of hardware furnish keepers or strikes with oblong holes in them (because they know doors will shrink), hence the strikes or keepers need not be moved.



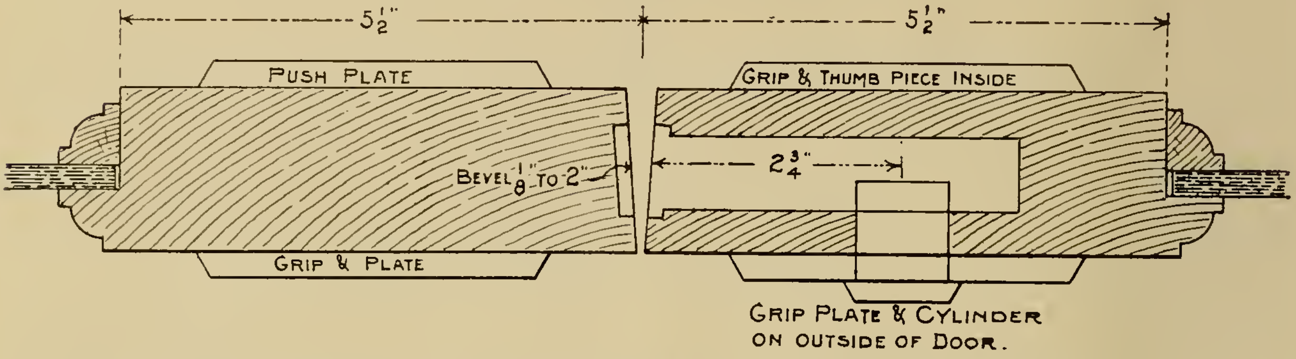
Half Size Detail of the Narrow Door Attached to Adjustable Hanging Strip.


4 FLUSH BOLTS AT BOTTOM—NO BOLTS AT TOP.
HANGERS
SLIDING DOOR LOCK AND CUP ESCUTCHEONS.
15' 0"
SCALE 1/4" EQUALS 1'-0".

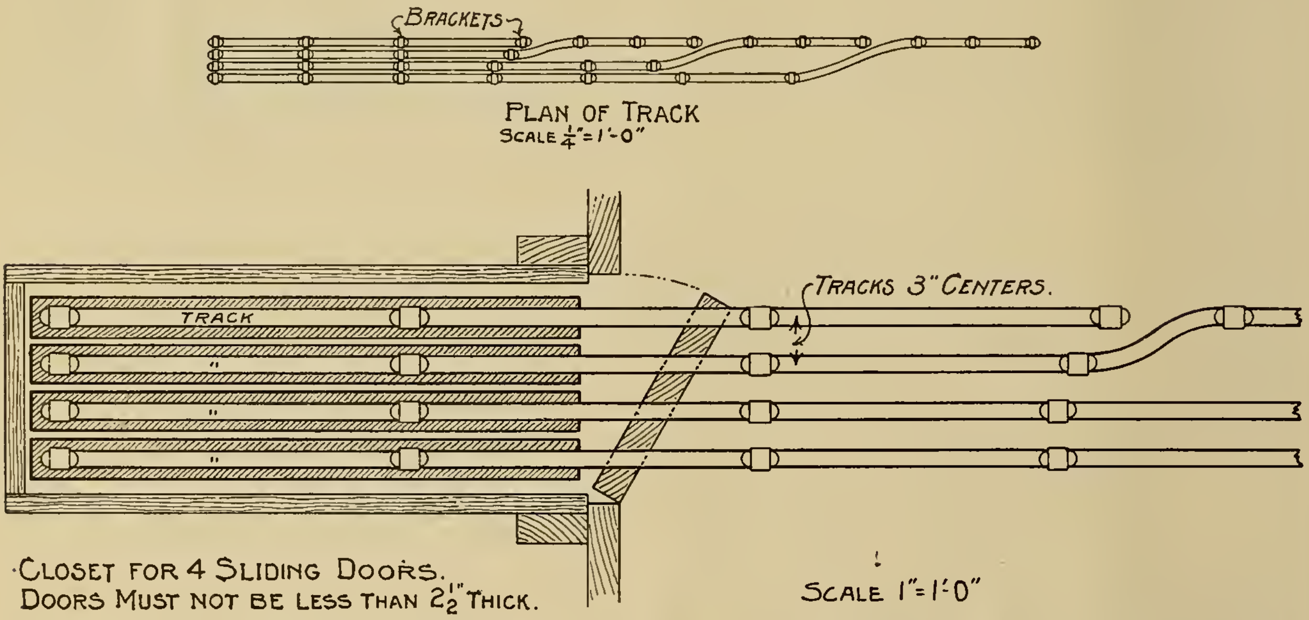
Accordion Folding Doors—Directions for Ordering: Track Should be as Long as Opening is Wide. Brackets Should be Placed 2 to 2½ Feet Apart. One Hanger is Required for Every Other Door, Beginning with Door Farthest from Half Door. Doors Should Not Exceed 3 Feet in Width.



Detail of Double Doors to Open Out. Note That Edges Are Beveled, Not Rounded.


5½"
5½"
PUSH PLATE
GRIP & THUMB PIECE INSIDE
2¾"
BEVEL ⅛" TO 2"
GRIP & PLATE
GRIP PLATE & CYLINDER ON OUTSIDE OF DOOR.

Detail of Double Doors to Open Out—for Schools, Churches, Theaters and Loft Buildings.



Plan View of Tracks for Four-Door School House Partition Heavy Enough to Carry Blackboard Panels; with Detail View of Pocket for Doors to Slide Back Into.

School-Room Partition Doors

ARRANGEMENT OF PARTITION DOORS HEAVY ENOUGH TO CARRY BLACKBOARD PANEL

We show herewith, in the bottom detail, four sliding doors, all of which slide back into one pocket.

You will notice that this scheme is to take the place of accordion folding doors, dividing a large room into two or more smaller rooms.

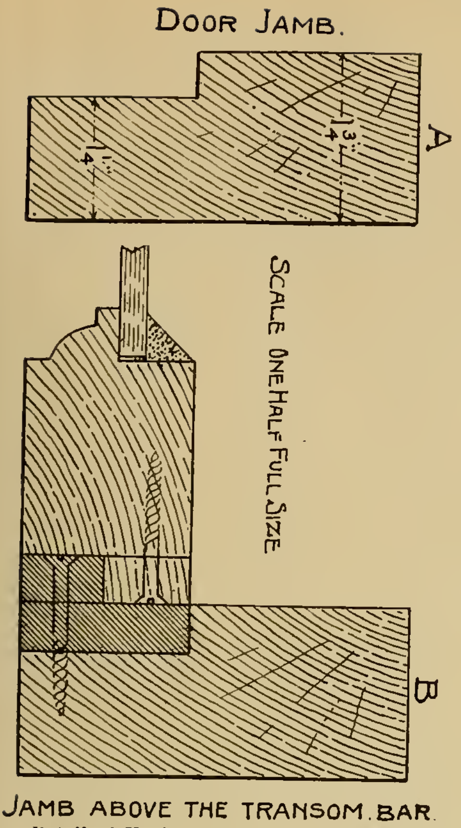
This is especially desirable if these partition doors are required for additional blackboard space.

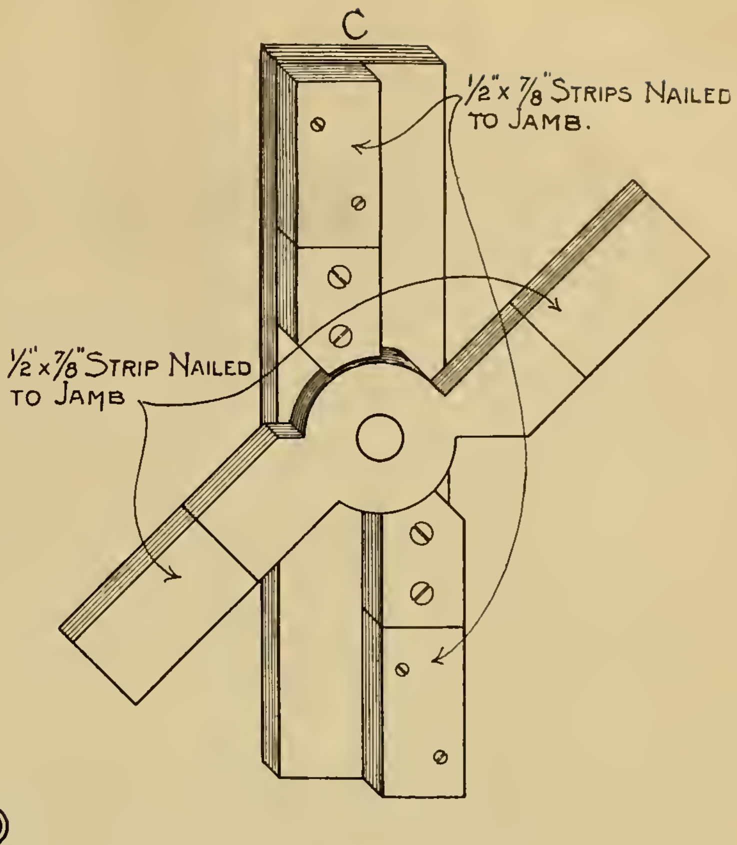
This device is in common use in the Chicago public schools, and is being installed in many of the schools in the larger cities. The accordion folding doors are much lower in price: but price does not count when a perfect up-to-date device is wanted.

Any number of doors can be used. If you have the space for a pocket in the opposite wall you can slide some of the doors into same.

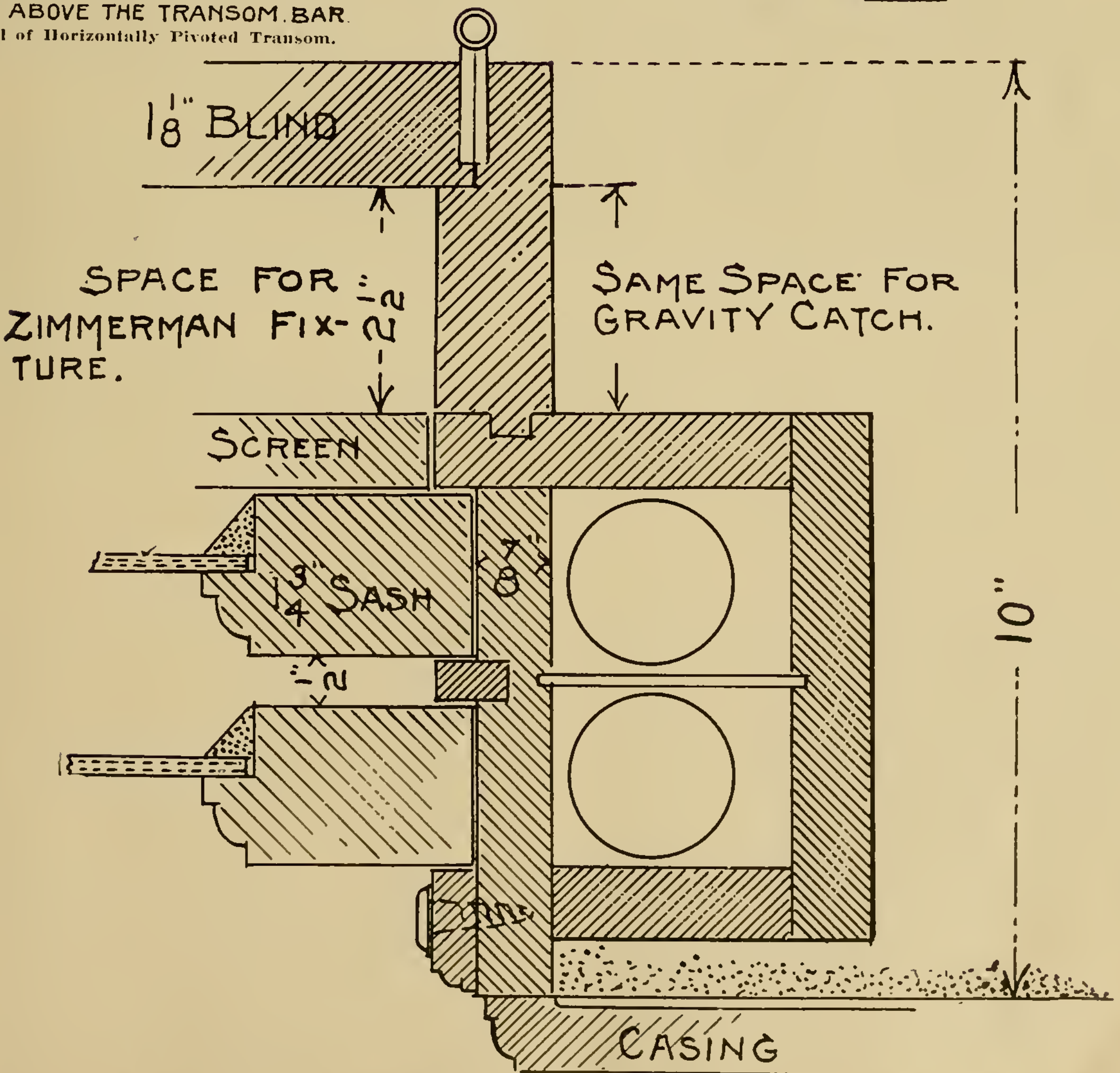
If it is desired to hide these doors, a panel can be placed in front of the doors when same are back into the pocket.

This panel can be hung on invisible hinges and a very satisfactory job is obtained.

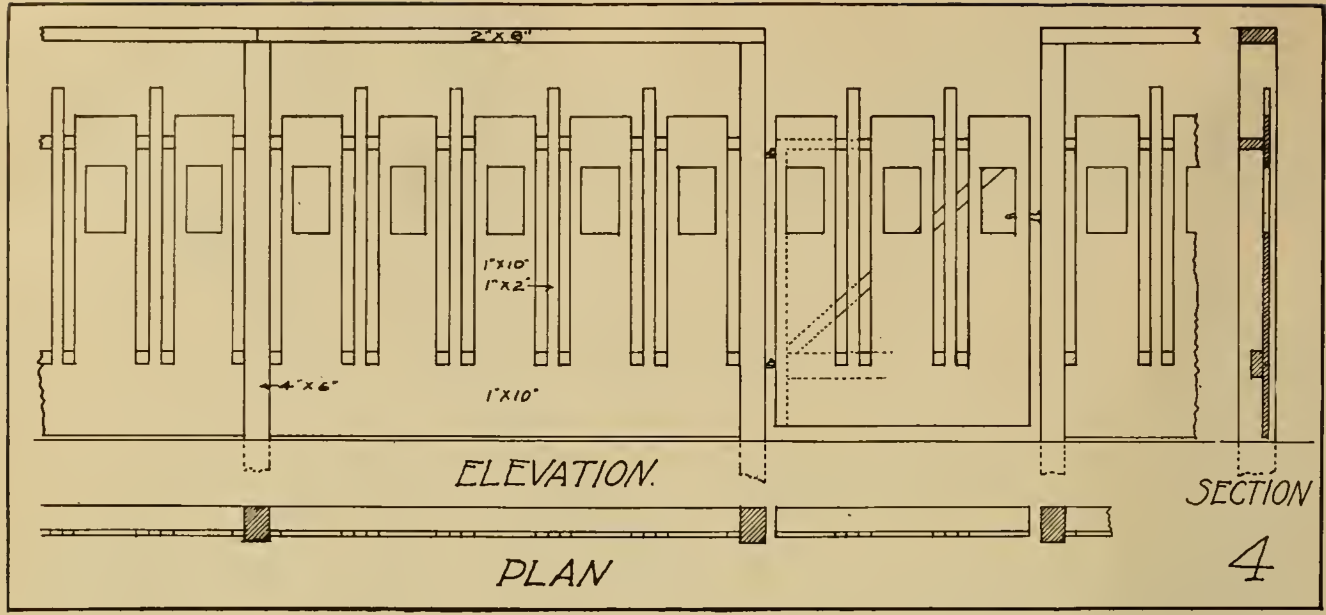


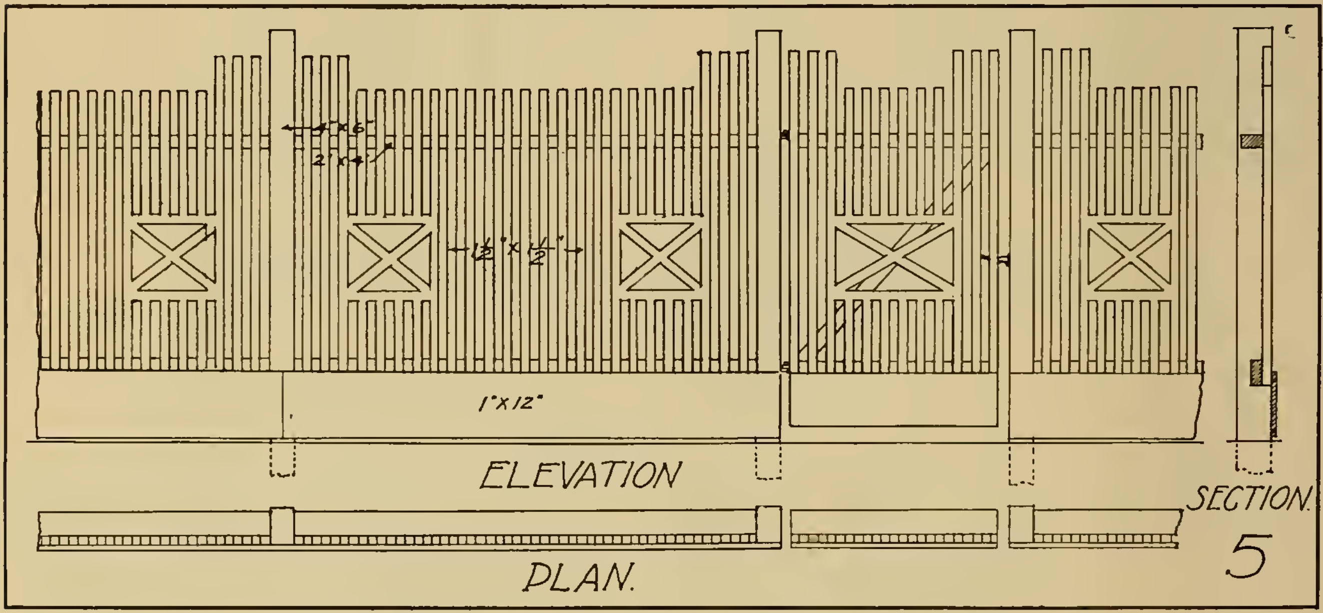

C
1/2" x 7/8" STRIPS NAILED TO JAMB.
1/2" x 7/8" STRIP NAILED TO JAMB

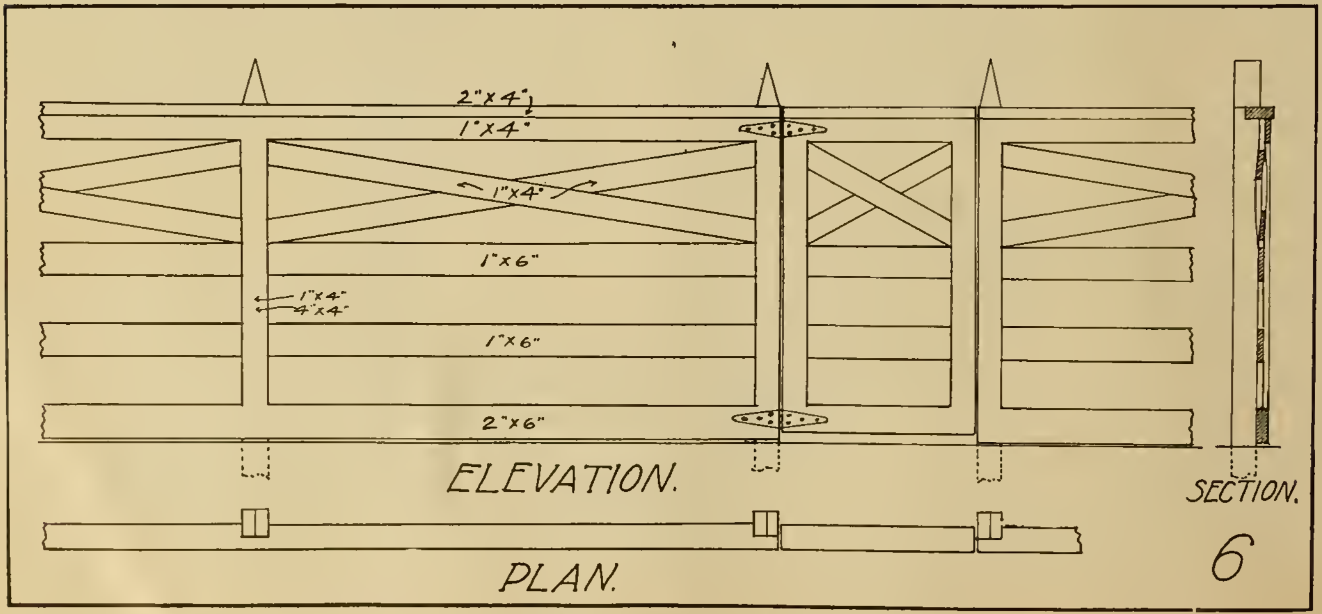
Detail of Horizontally Pivoted Transom.



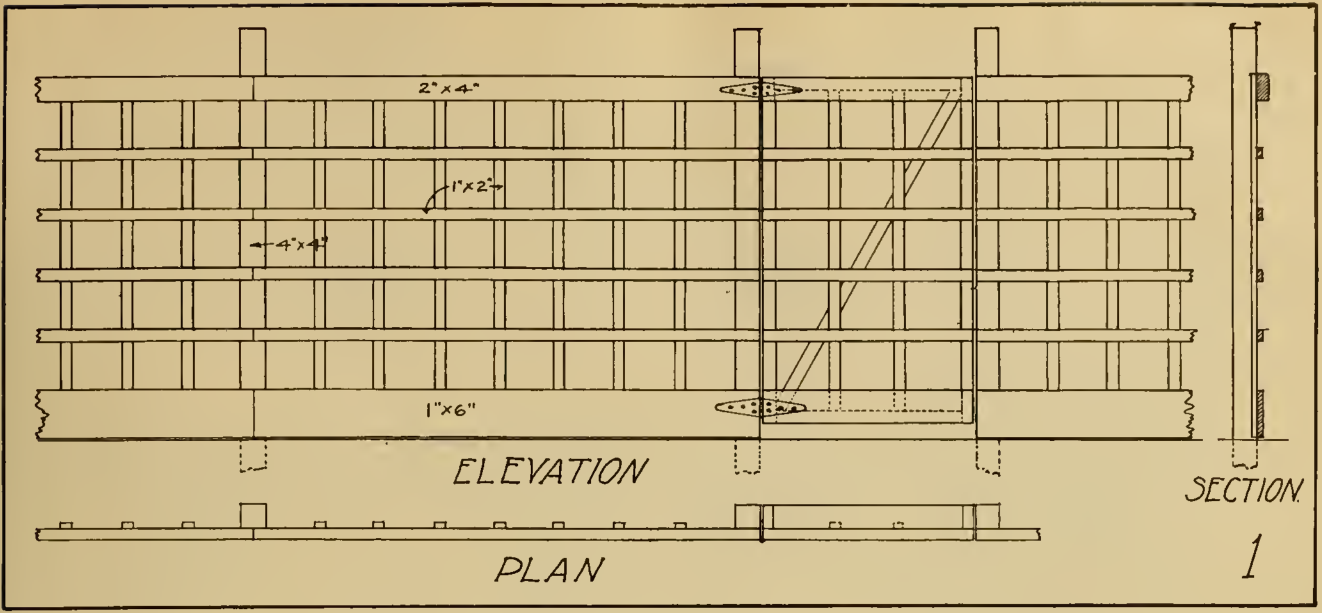
Detail of Outside Blinds for 10-Inch Wall. Note That There Must be a Space of at Least 2½ Inches Between Screen and Blind for Zimmerman or Gravity Fixtures; Scale One-Half Full Size.



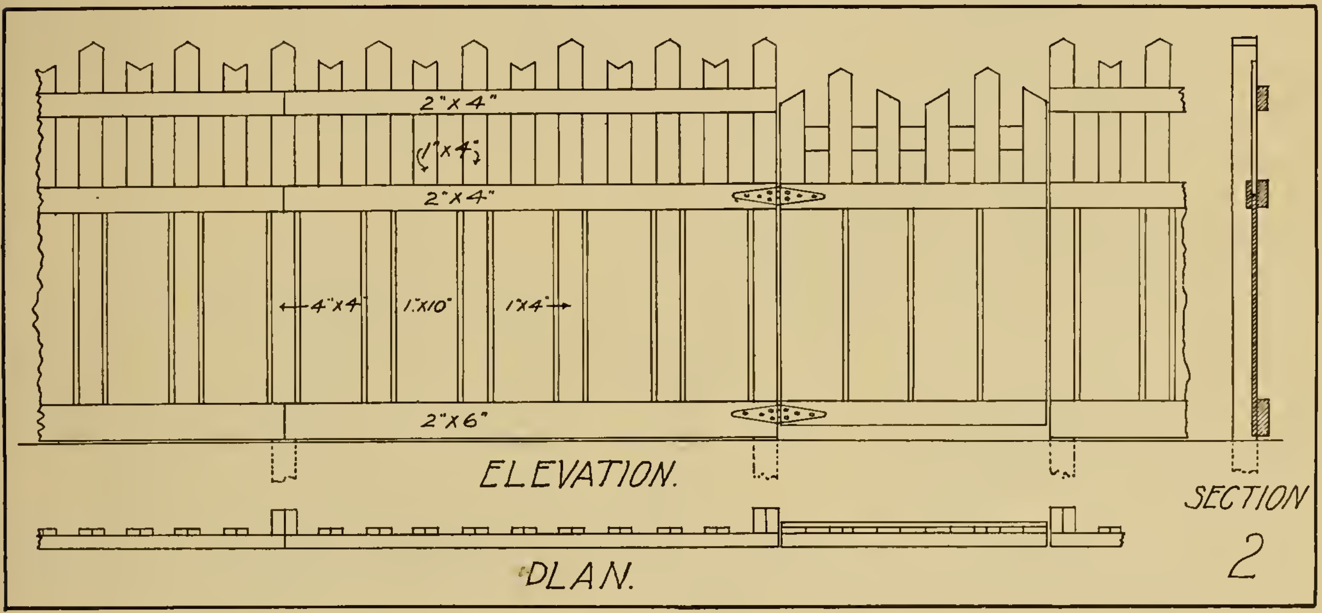




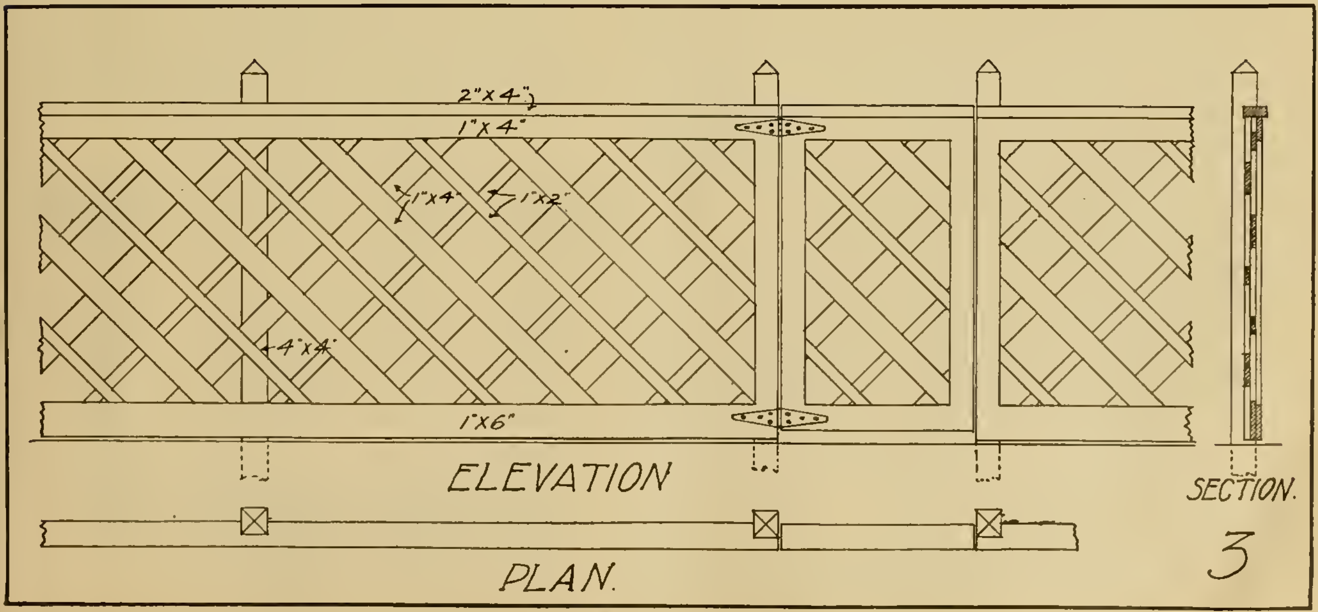
Ornamental Gates and Fences.



1



2



3

Ornamental Gates and Fences.

Sun Parlor and Sleeping Porch Modernize Old Homes

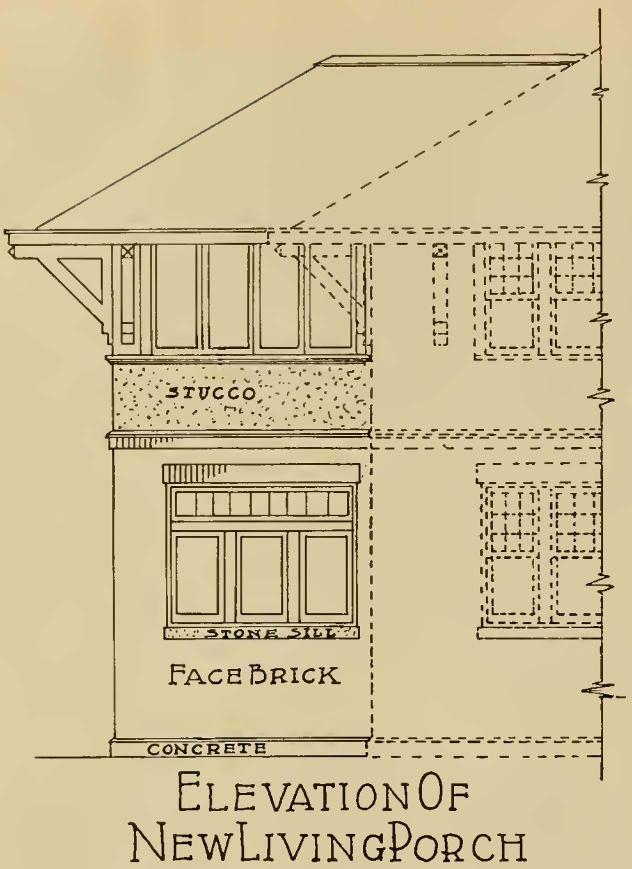
THERE are few houses that were built before sun parlors and sleeping porches came into demand that cannot be remodeled so as to have these modern features. The cost of the additional rooms is more than gained by the satisfaction they give the owner and the increase in the value of the house, should it be sold.

In designing a sun parlor, or a sun parlor and sleeping porch, first consider the type of architecture of the house and place the addition where it will most improve the dwelling. The addition here shown was placed at the side of the house, at the front. This is constructed of face brick, set on a concrete foundation, with a stucco strip below the sleeping porch windows. Details of the construction are given in the section.

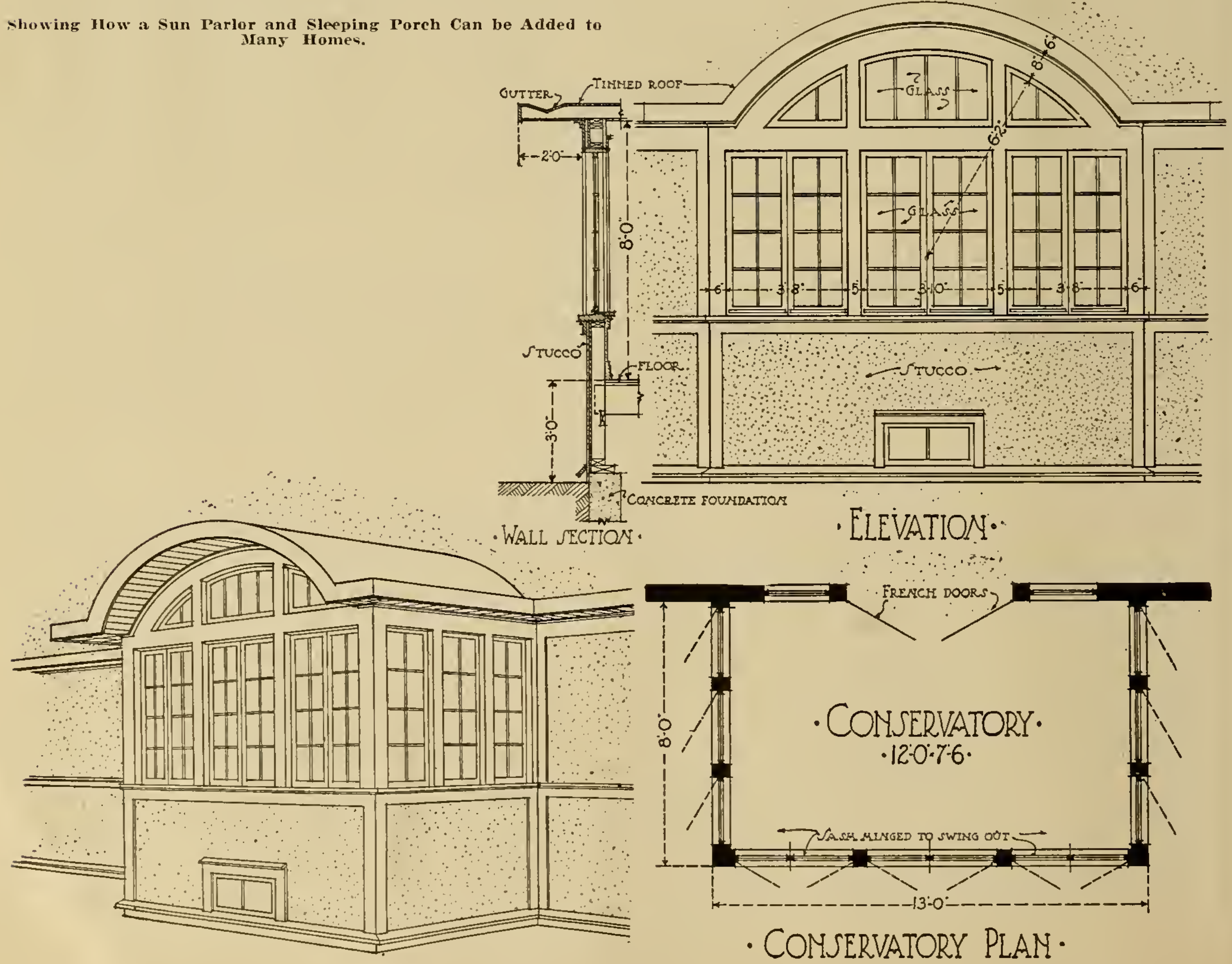
The floor plan of the sun parlor, or living porch, calls for a tile floor, but any material suitable or wanted by the owner can be substituted. The glazed doors leading from the living room to the porch also can be changed into any other desirable type, or left out altogether.

In this design the roof line was extended out over the porch to conform to that of the rest of the building. That is a feature that should not be overlooked—to so design and build the addition that it will not appear as an addition, but apparently will be a part of the original construction.

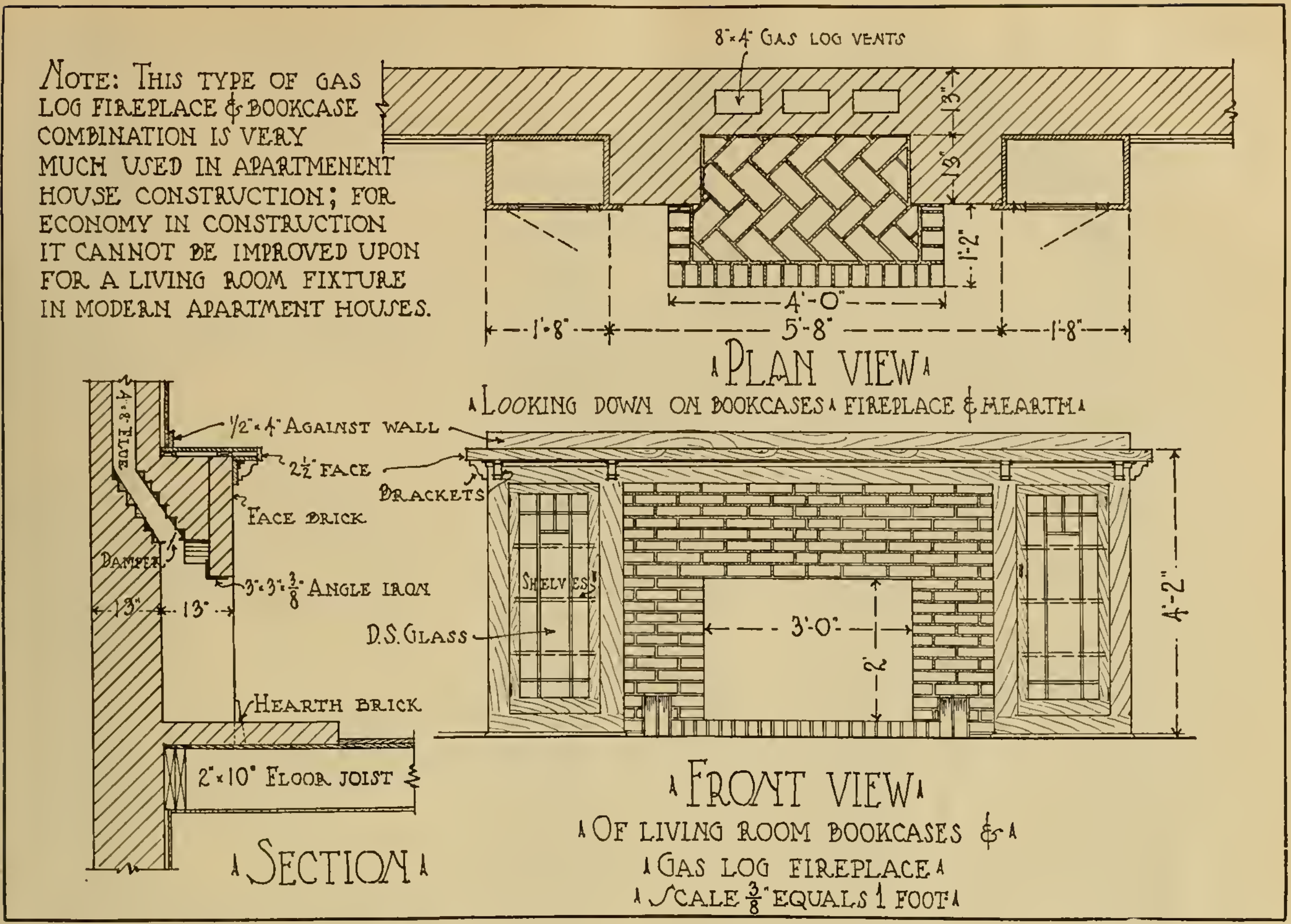
As has been said, this design is susceptible to many alterations. For instance, the living porch here shown can be transformed into an outdoor dining porch, adjoining the dining room, with a sleeping porch above. When such an addition is made, the construction will be more simple, as dining porches usually were merely screened in, being placed in a position where there is more privacy.



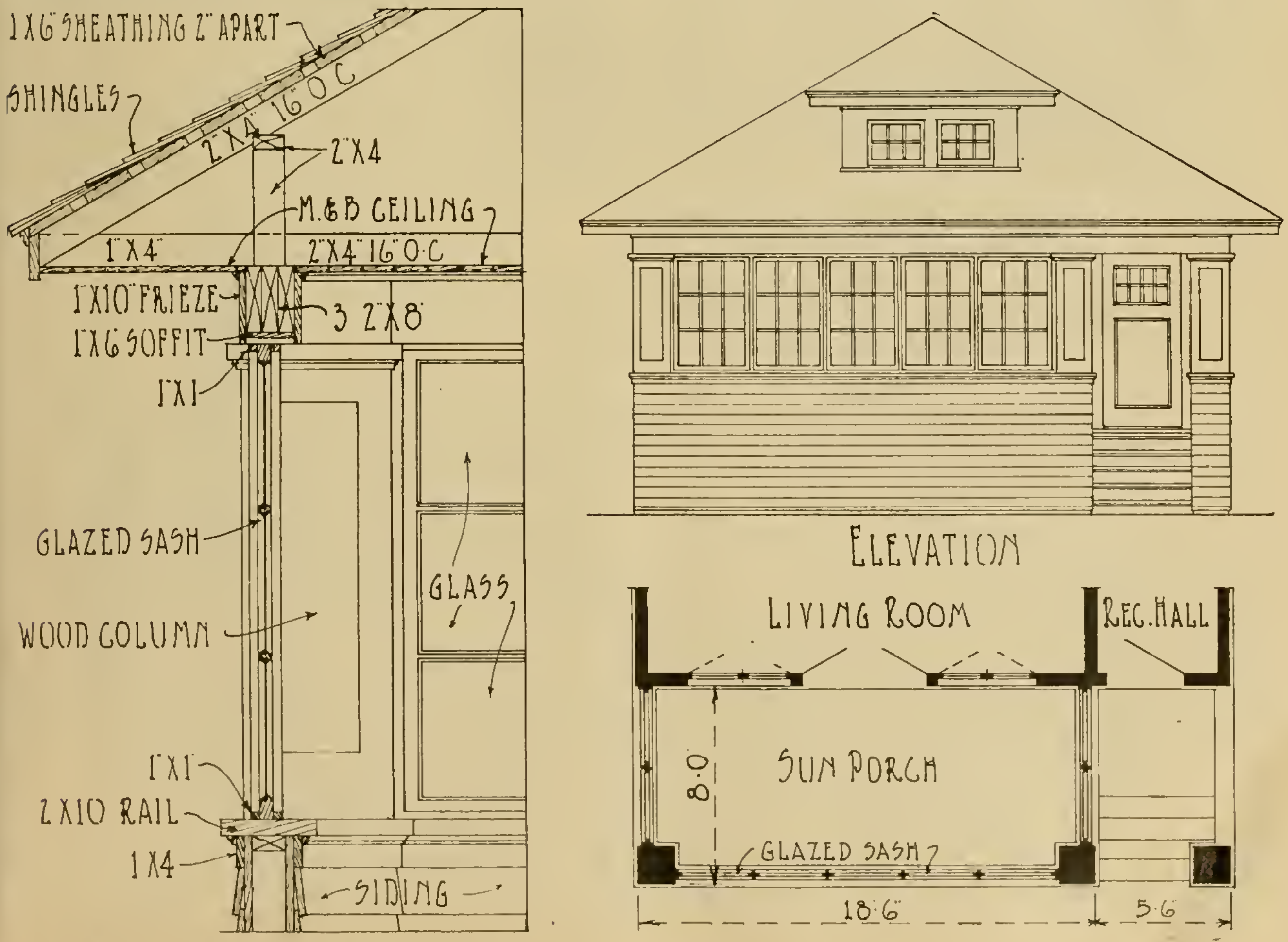
Showing How a Sun Parlor and Sleeping Porch Can be Added to Many Homes.



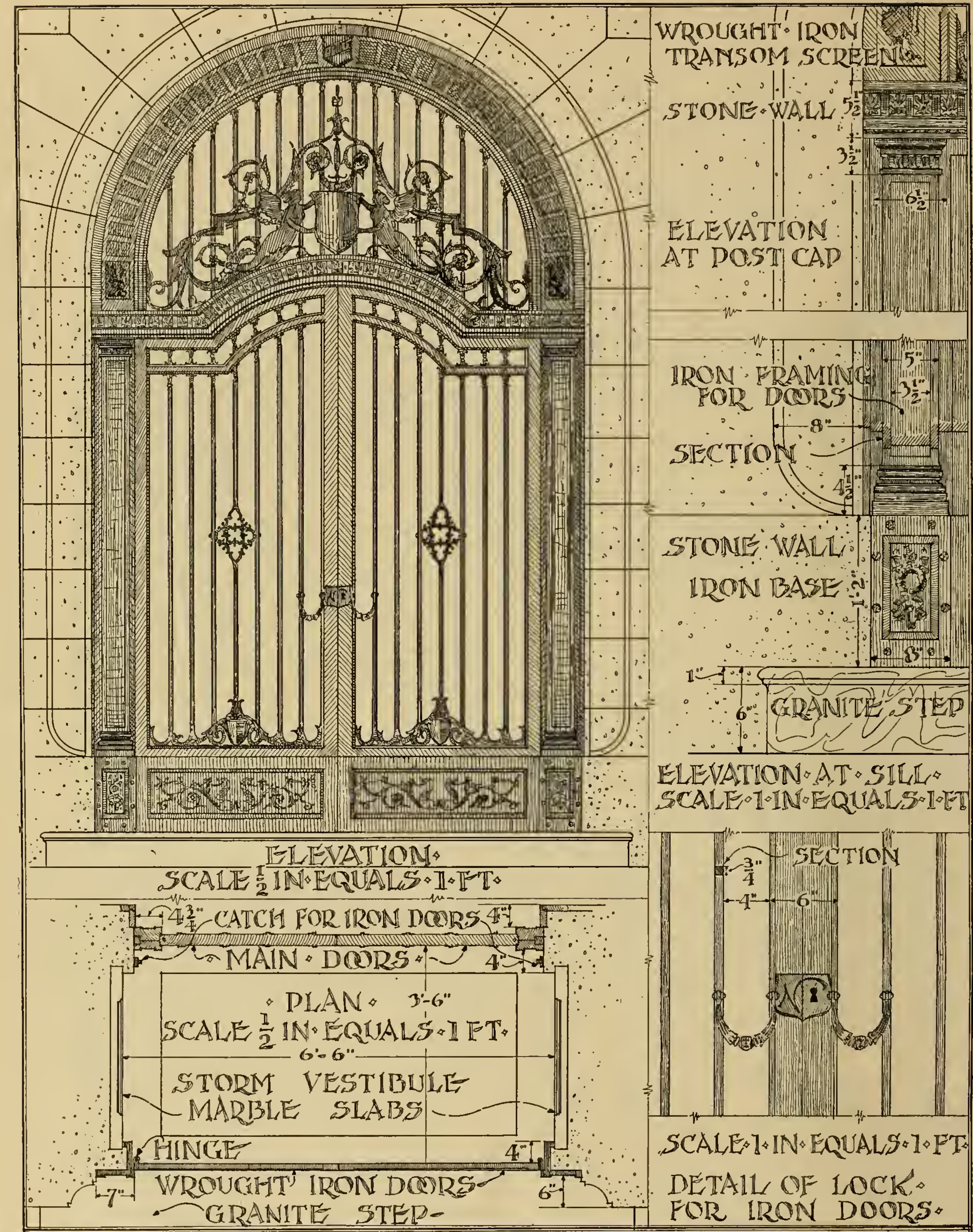
Perspective Sketch, Floor Plan and Details of an Artistic Sun Parlor or Conservatory Addition to be Built onto a Stucco House.



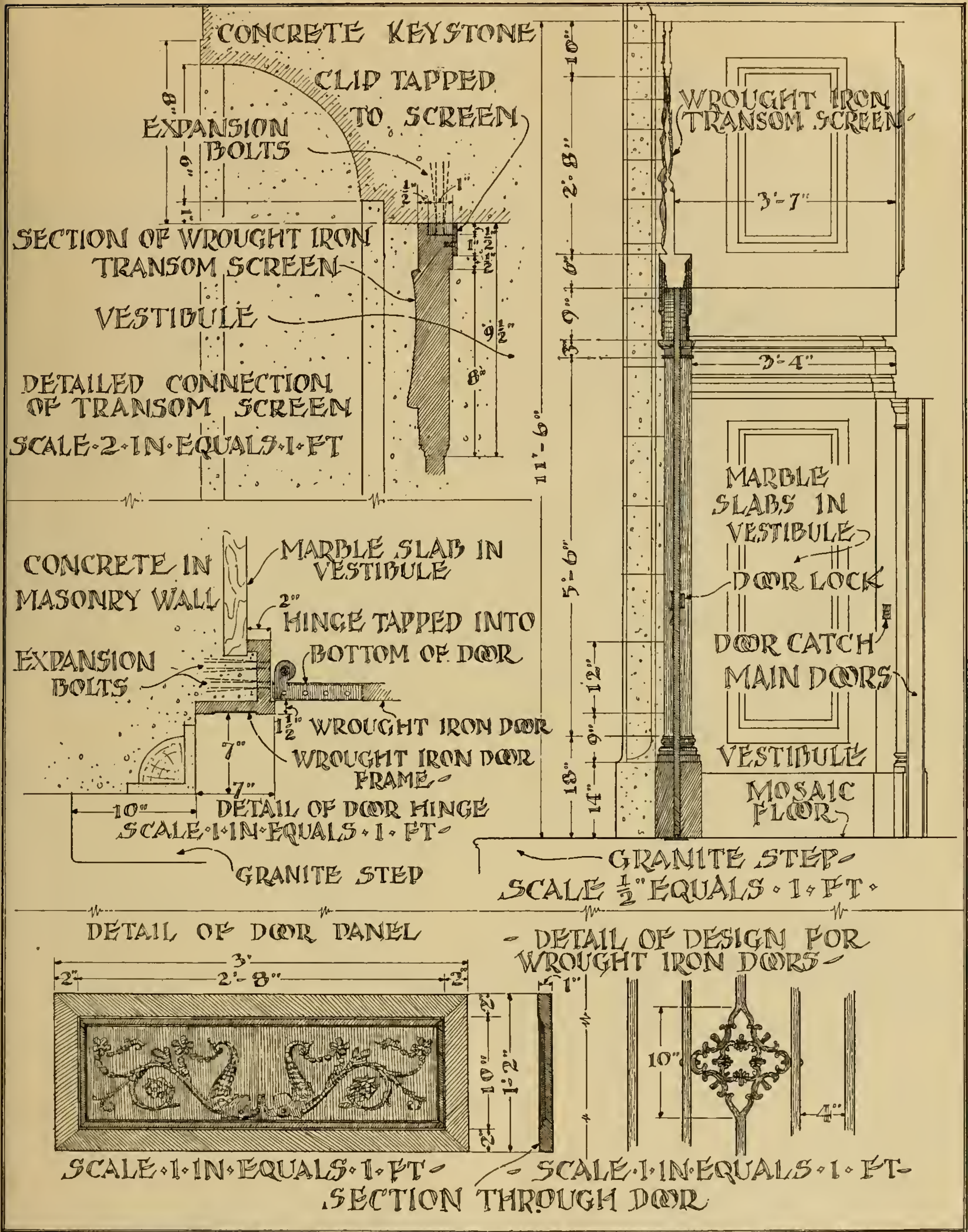
NOTE: THIS TYPE OF GAS LOG FIREPLACE & BOOKCASE COMBINATION IS VERY MUCH USED IN APARTMENENT HOUSE CONSTRUCTION; FOR ECONOMY IN CONSTRUCTION IT CANNOT BE IMPROVED UPON FOR A LIVING ROOM FIXTURE IN MODERN APARTMENT HOUSES.



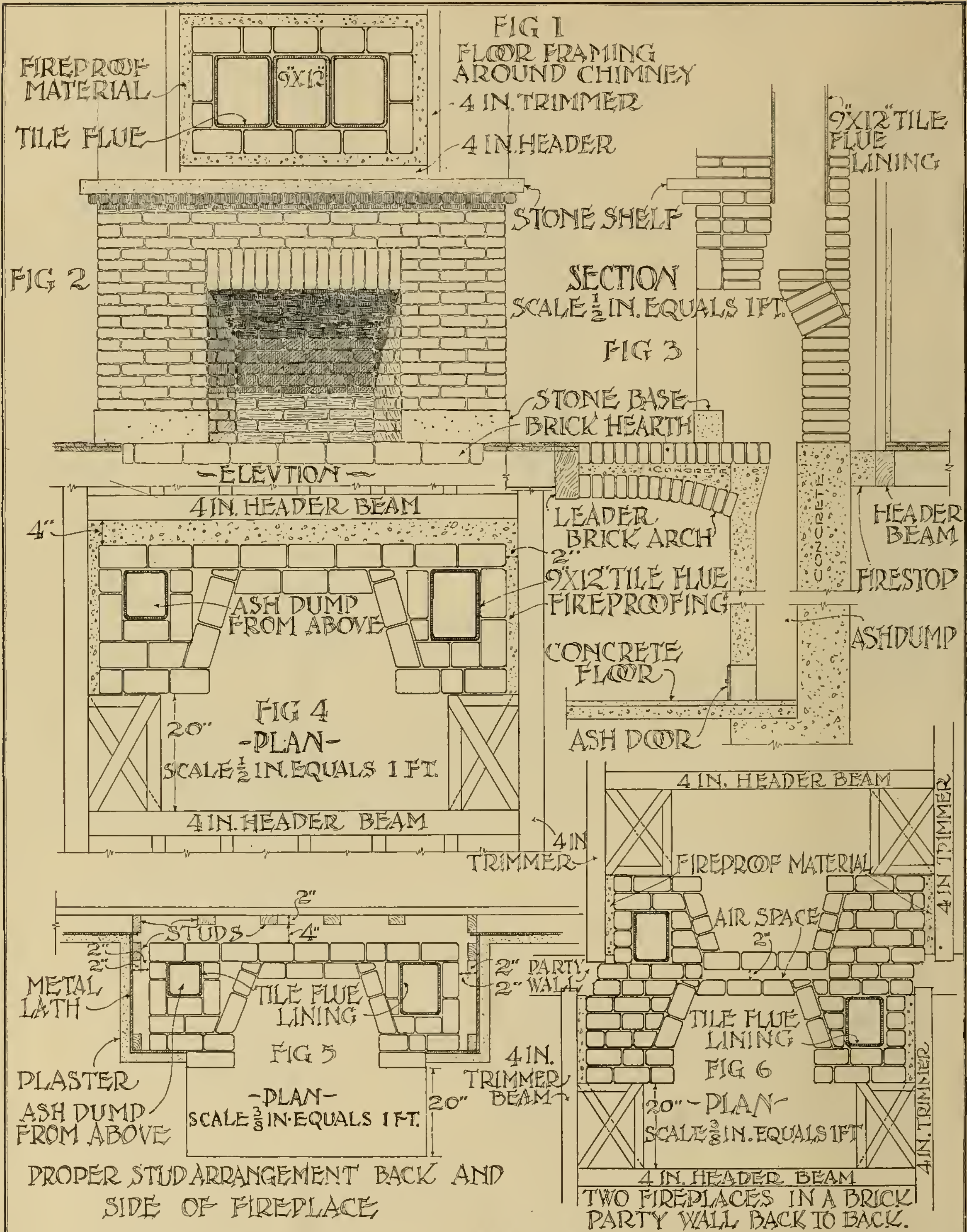
Details of Enclosed Porch and Separate Entry with French Doors and Cement Windows Between Porch and Living Room.



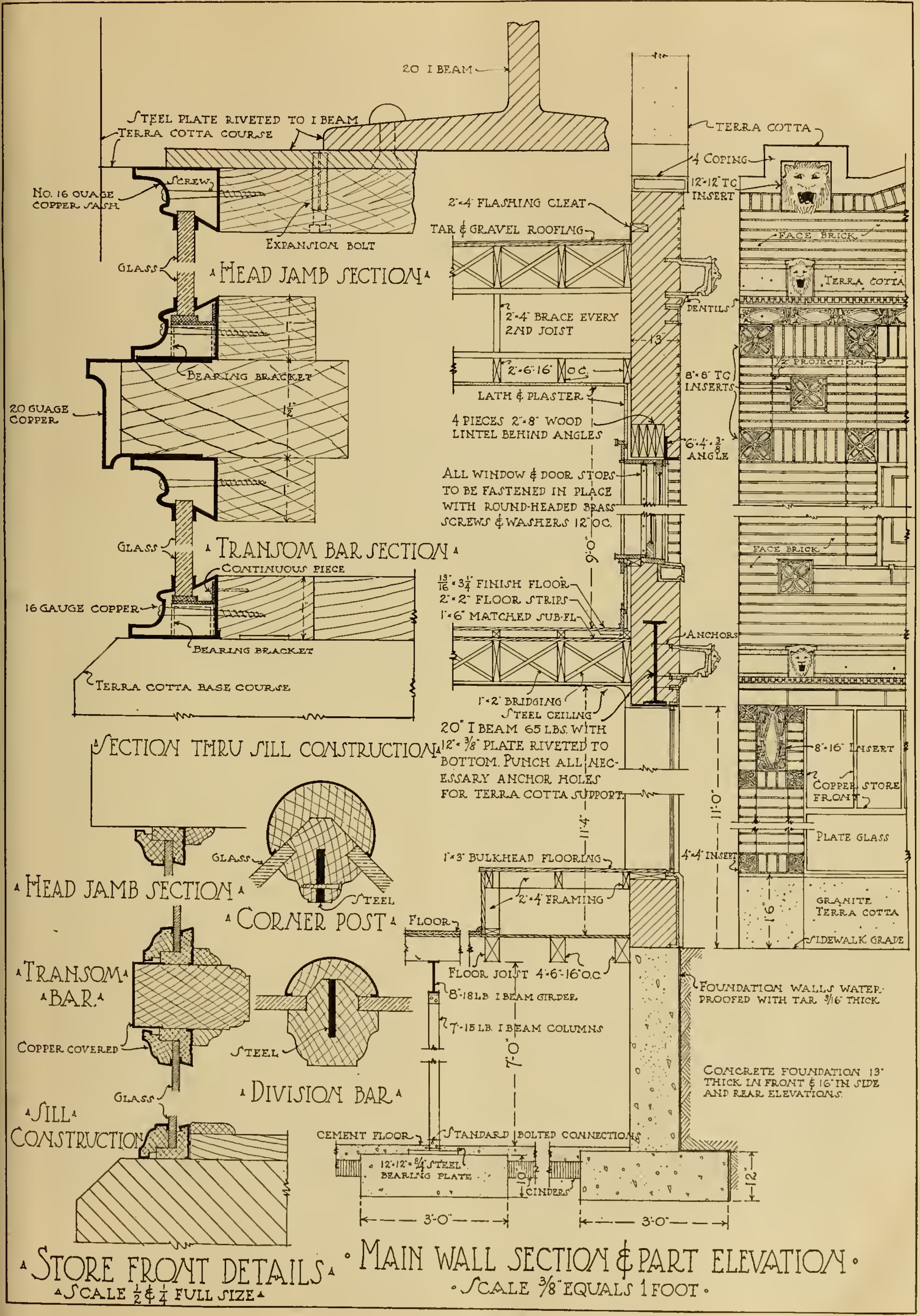
·WROUGHT·IRON·DOORS·
·FOR·A·CITY·BANK·



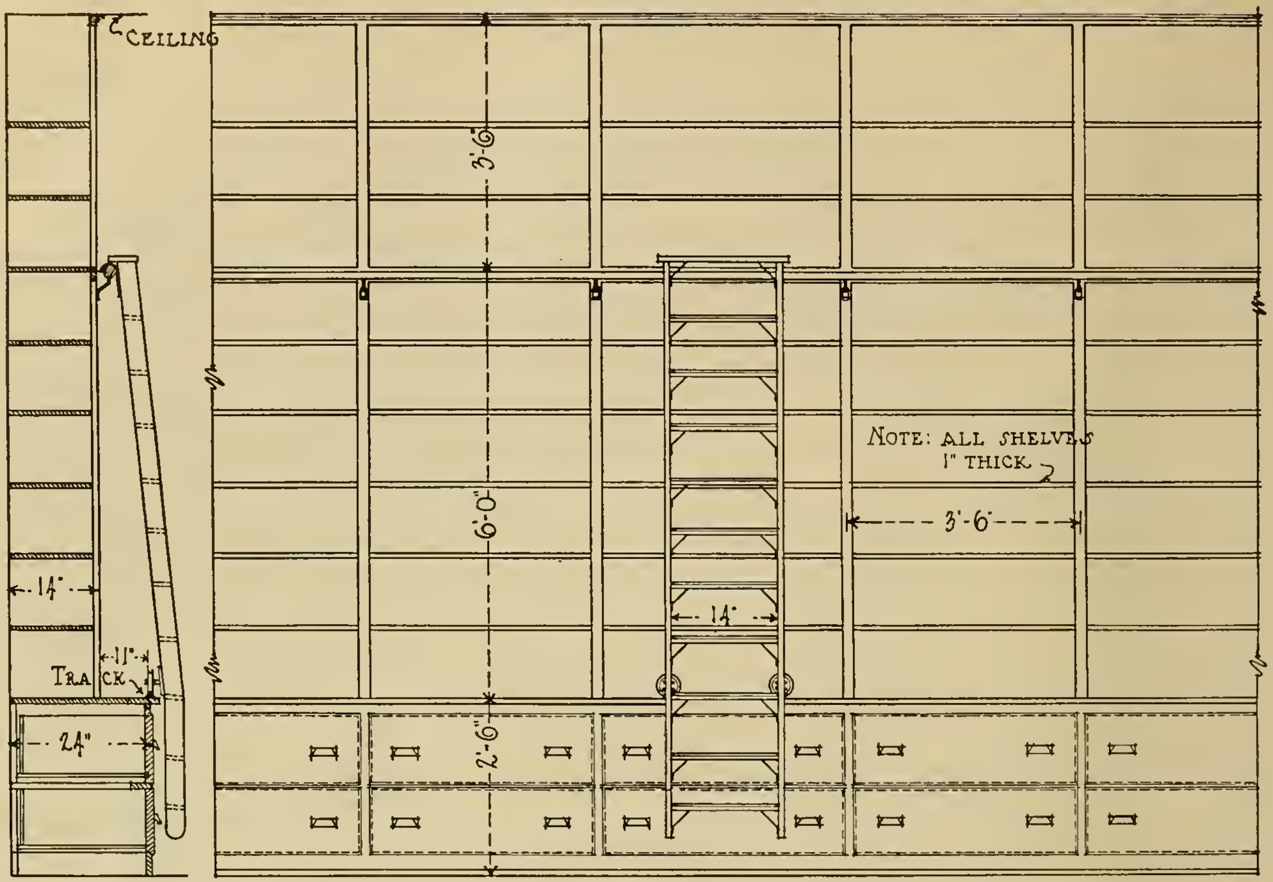
WROUGHT IRON DOORS FOR A CITY BANK



FIREPLACE · CONSTRUCTION · FOR · A · ONE · OR · TWO · FAMILY · HOUSE

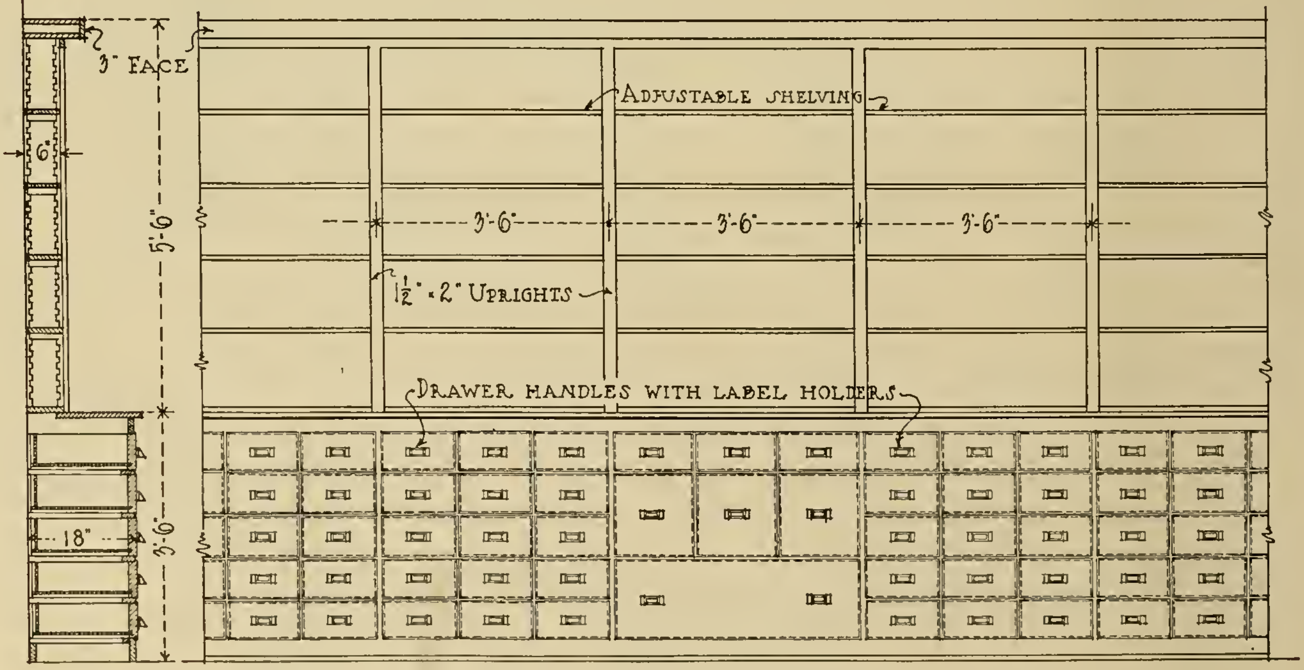


Show Window and Front Wall Construction of Store Building.



·SECTION·AND·ELEVATION·OF·SHOE·STORE·SHELVING·

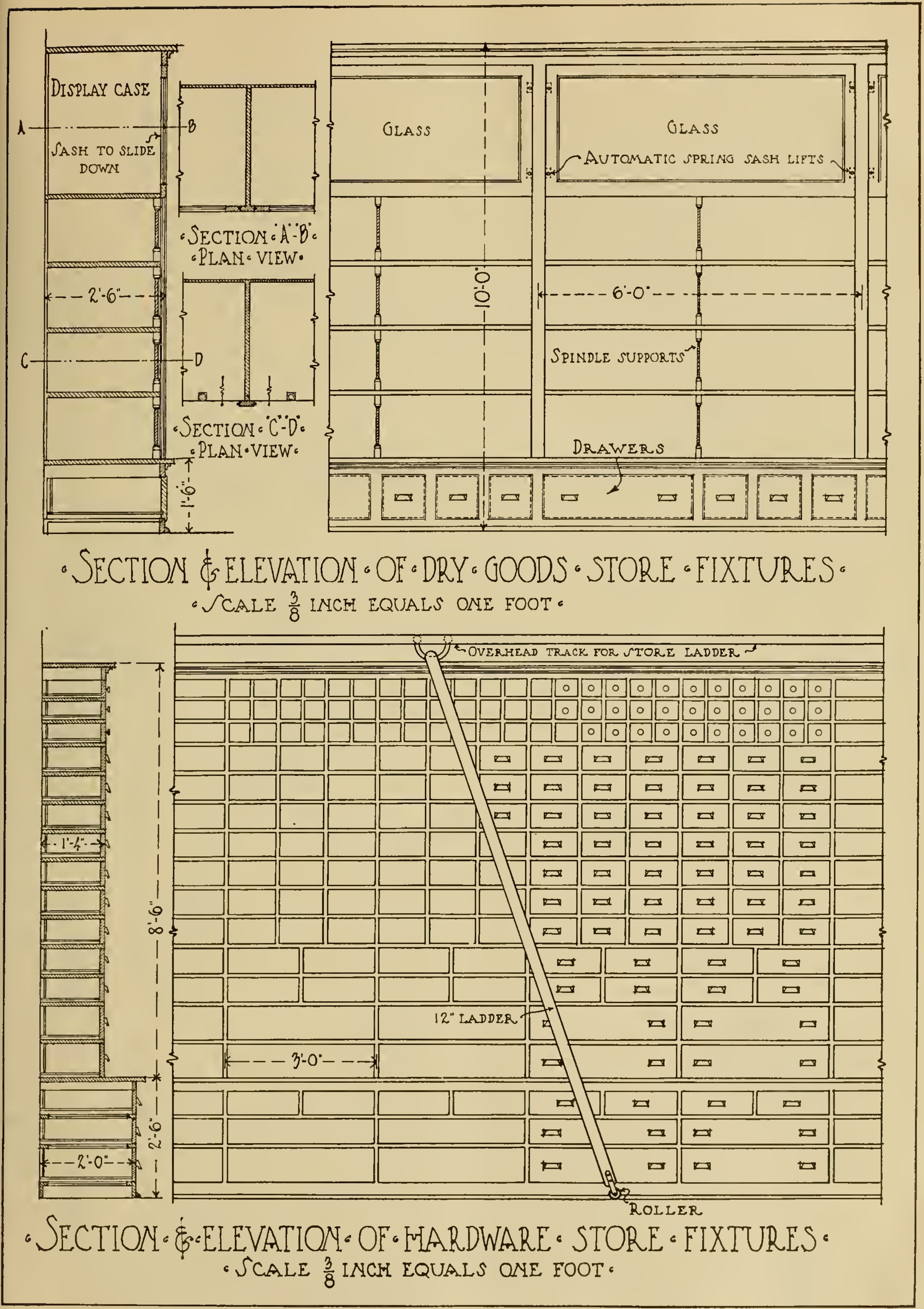
·SCALE·$\frac{3}{8}$·INCH·EQUALS·ONE·FOOT·



·SECTION·AND·ELEVATION·OF·DRUG·STORE·FIXTURES·

SCALE·$\frac{3}{8}$·INCH·EQUALS·ONE·FOOT·

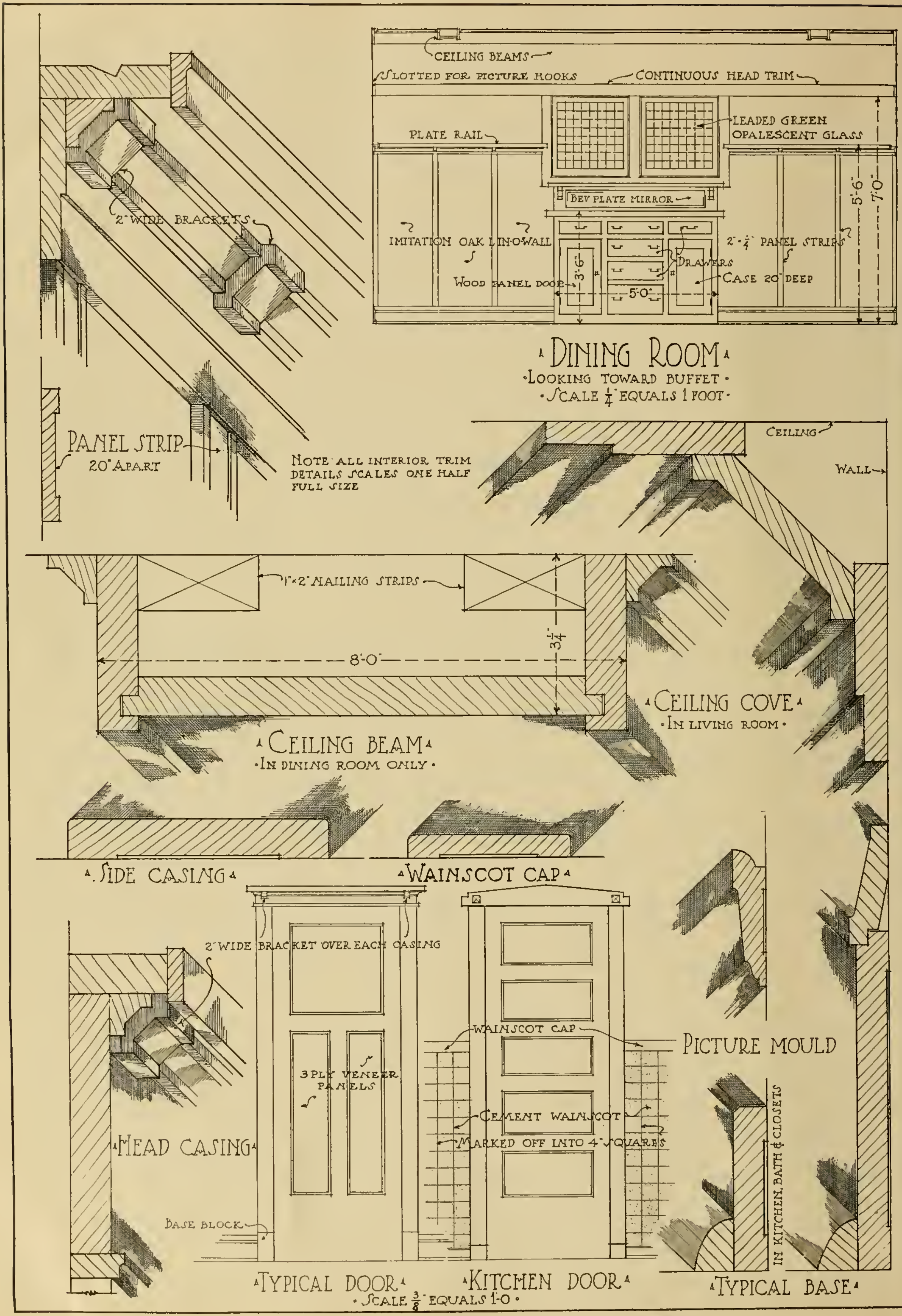
Details of Shelves and Fixtures Suitable for Shoe Stores and Drug Stores. The Ladder Construction for Handling the Shoe Store Shelving Is a Feature. The Drug Store Design Is a Standard Design Such as Might Be Found in a Well Arranged Drug Store.



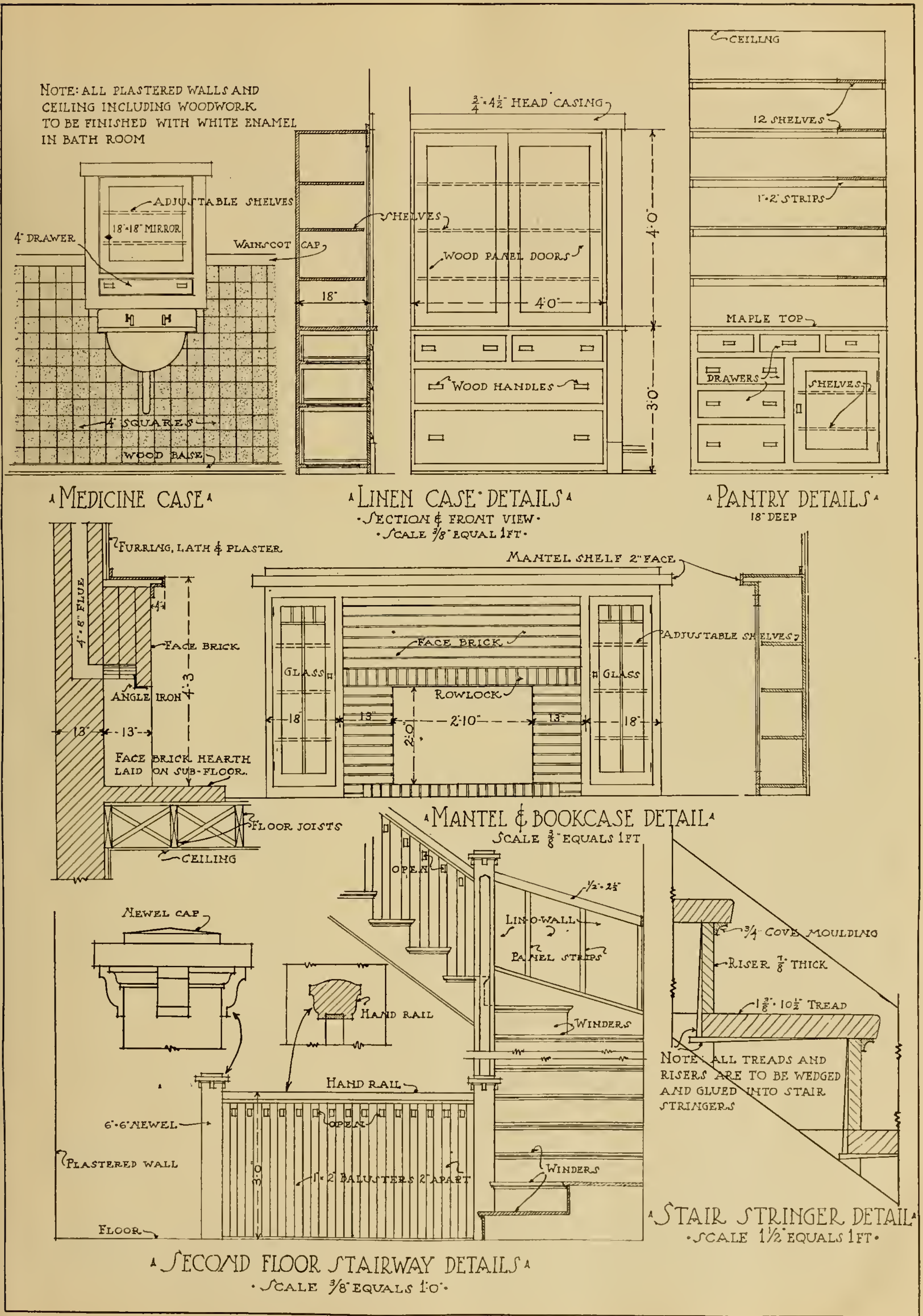
SECTION & ELEVATION OF DRY GOODS STORE FIXTURES
SCALE $\frac{3}{8}$ INCH EQUALS ONE FOOT

SECTION & ELEVATION OF HARDWARE STORE FIXTURES
SCALE $\frac{3}{8}$ INCH EQUALS ONE FOOT

Shelves and Fixture Arrangements for a Modern Dry Goods Store and a Hardware Store. The Small Labeled Drawers Are the Most Useful for a Hardware Store. The Broad Shelves for the Dry Goods Do Not Need to Be Marked as the Material Can Be Easily Seen.



Details of Interior Finish in Second and Third Floor Apartments.



MEDICINE CASE

LINEN CASE DETAILS
SECTION & FRONT VIEW
SCALE 3/8" EQUAL 1 FT.

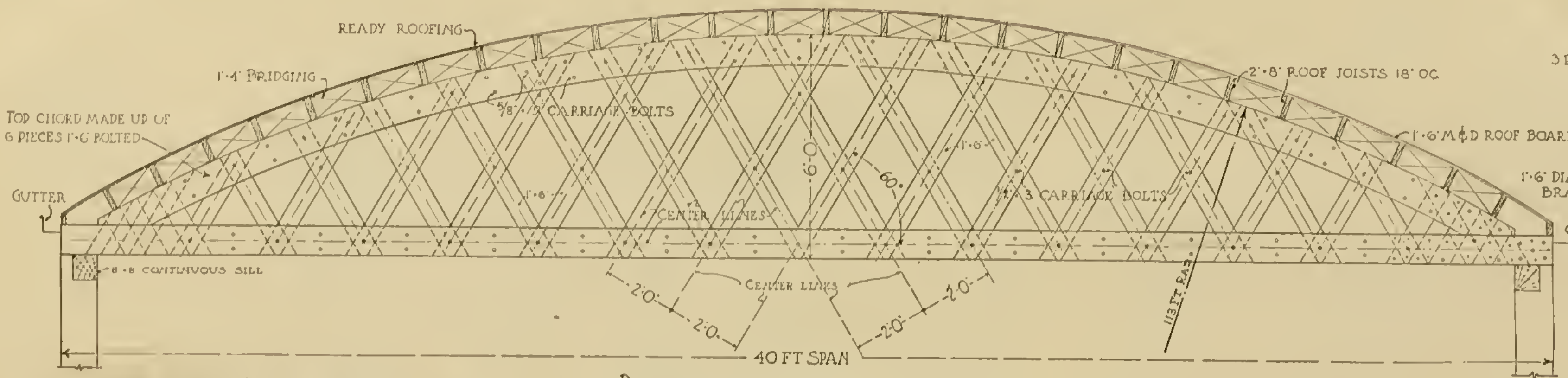
PANTRY DETAILS
18" DEEP

MANTEL & BOOKCASE DETAIL
SCALE 3/8" EQUALS 1 FT

SECOND FLOOR STAIRWAY DETAILS
SCALE 3/8" EQUALS 1'0"

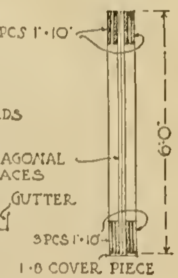
STAIR STRINGER DETAIL
SCALE 1 1/2" EQUALS 1 FT.

Details of Special Interior Trim in Hall and in Living Quarters.

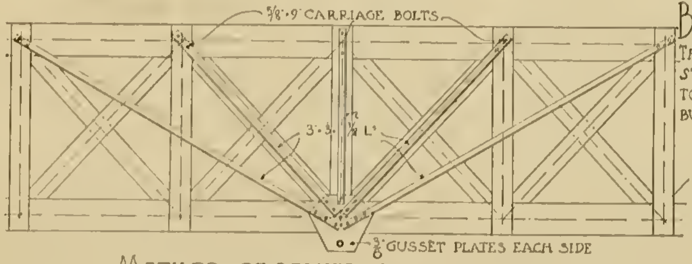


BOWSTRING LATTICE TRUSS

THIS STYLE OF TRUSS IS CONSIDERABLY STRONGER THAN THE ONE BELOW OWING TO THE CURVATURE OF THE TOP CHORD: BUT SOMEWHAT MORE COSTLY TO CONSTRUCT

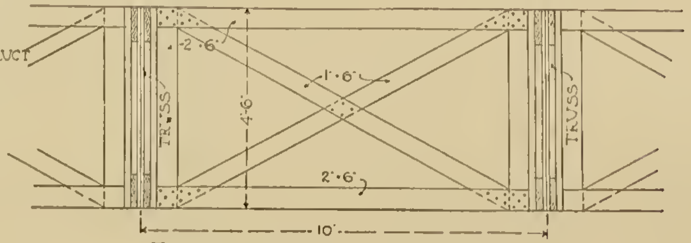


TRUSS SECTION

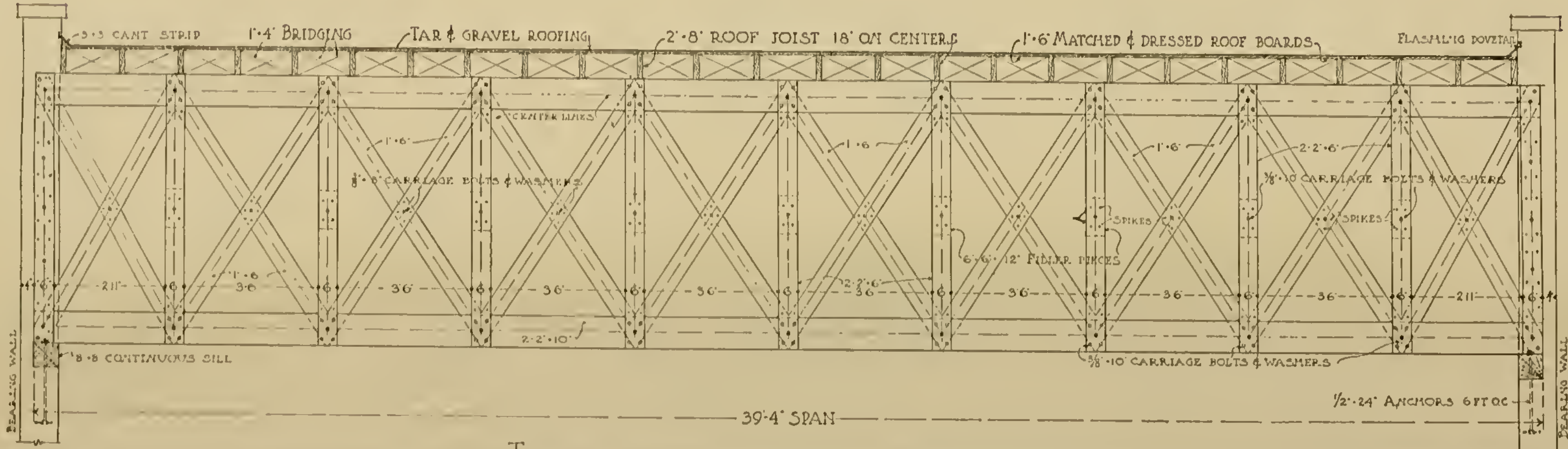


METHOD OF REINFORCING TRUSSES

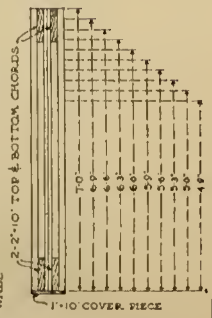
WHERE A BLOCK & TACKLE HOIST IS DESIRED: THIS METHOD DISTRIBUTES THE SUDDEN & CONCENTRATED LOAD OF LIFTING AUTOMOBILES, CASTINGS, ETC.



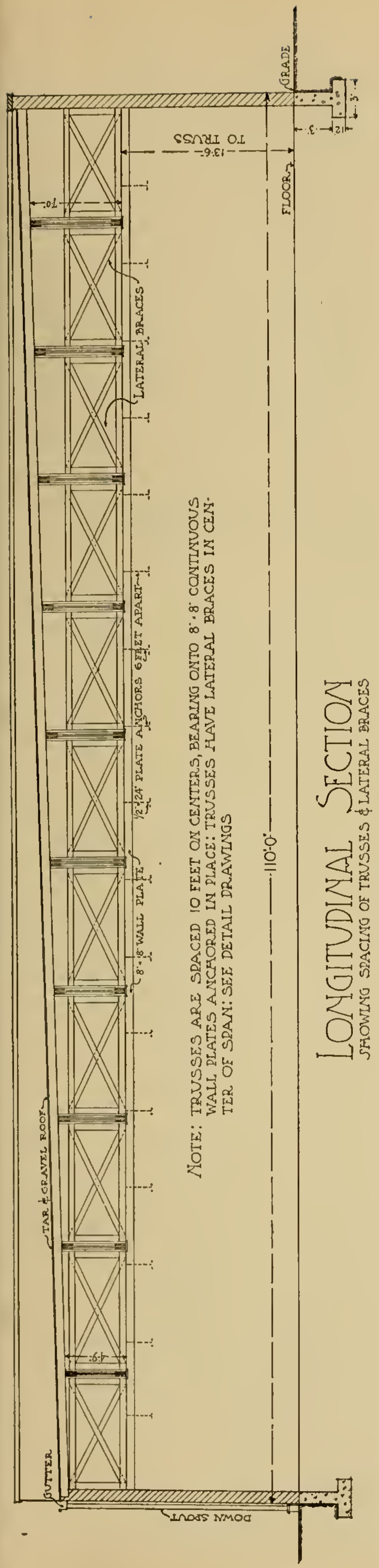
TYPICAL LATERAL TRUSS BRACE



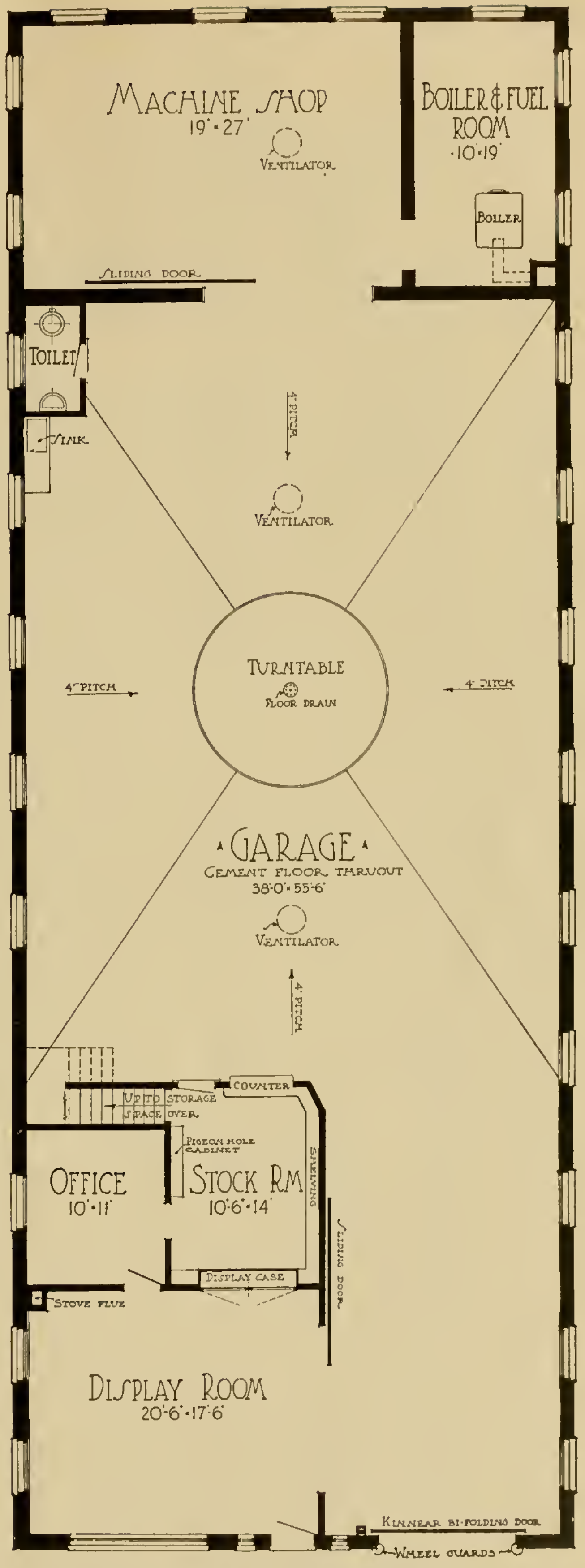
TYPICAL FLAT ROOF WOOD LATTICE TRUSS



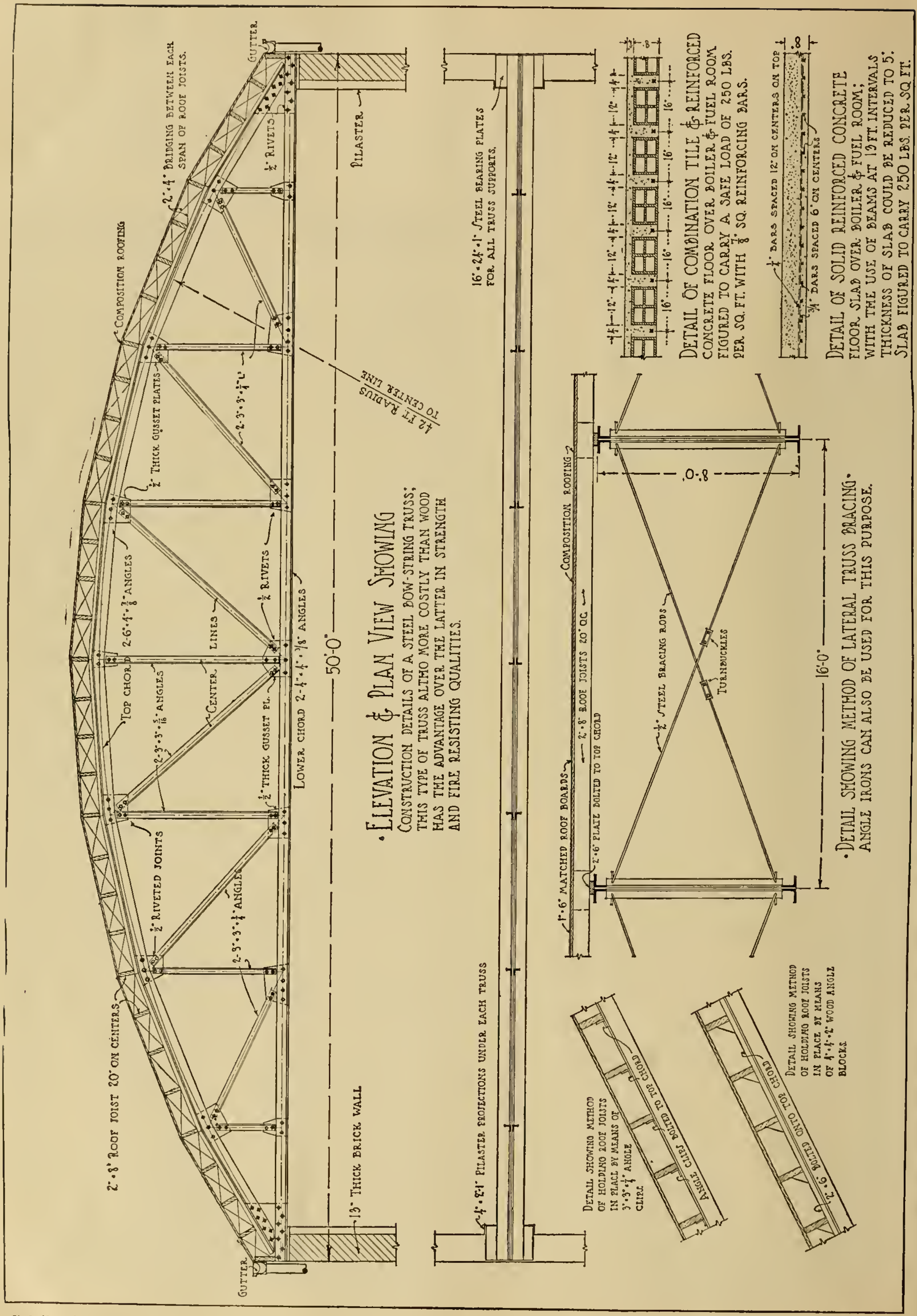
SECTION THRU TRUSS SHOWING DIFFFERENT HEIGHTS UNDER ROOF PITCH 3' TO EVERY 10 FEET


GRADE
3'
12
3'
13'-6"
TO TRUSS
10'
FLOOR
LATERAL BRACES
½"×24" PLATE ANCHORS 6 FEET APART
8"×8" WALL PLATE
TAR & GRAVEL ROOF
4'-9"
GUTTER
DOWN SPOUT
110'-0"
NOTE: TRUSSES ARE SPACED 10 FEET ON CENTERS, BEARING ONTO 8"×8" CONTINUOUS WALL PLATES ANCHORED IN PLACE: TRUSSES HAVE LATERAL BRACES IN CENTER OF SPAN: SEE DETAIL DRAWINGS
LONGITUDINAL SECTION
SHOWING SPACING OF TRUSSES & LATERAL BRACES

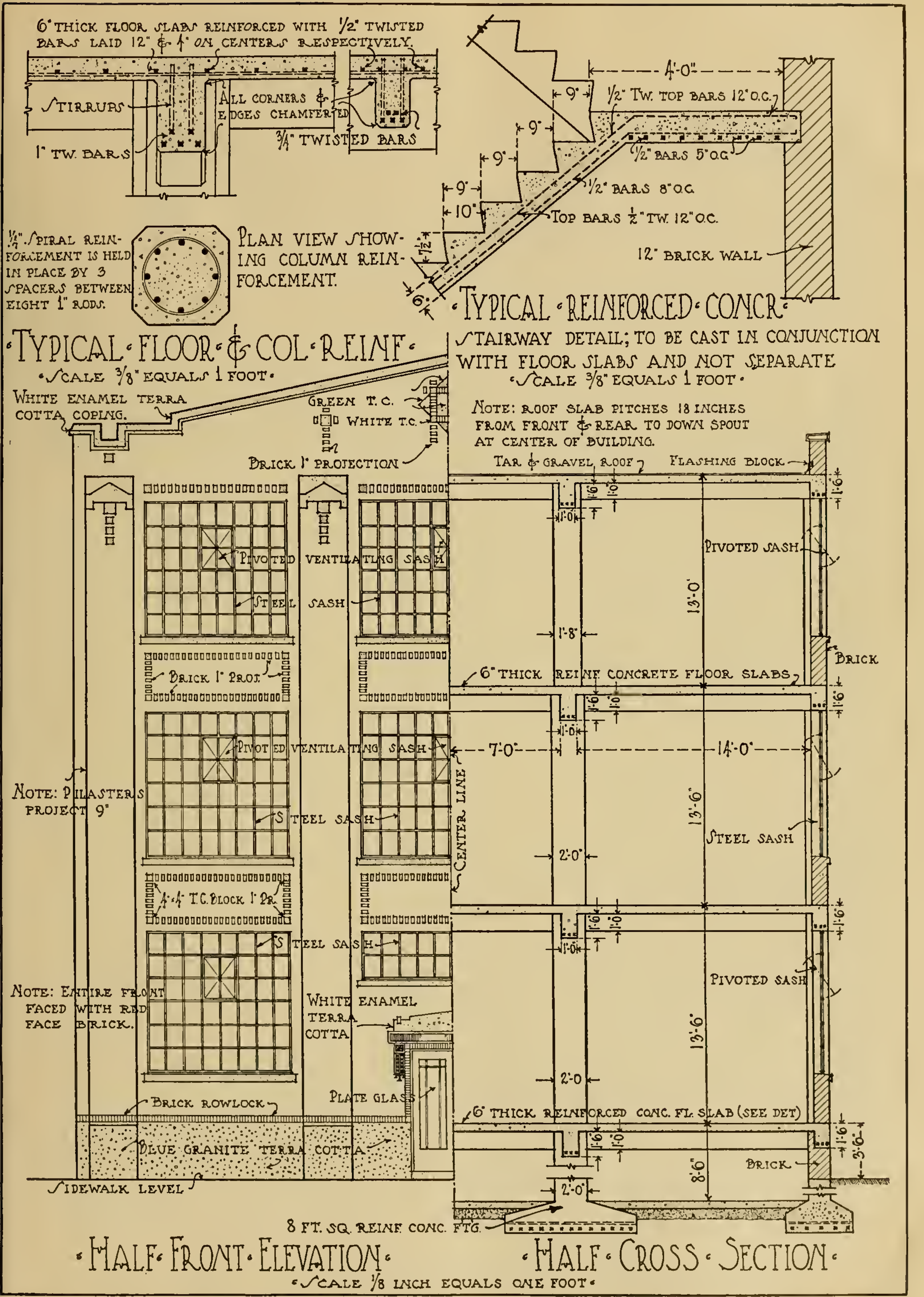
Details of Public Garage.



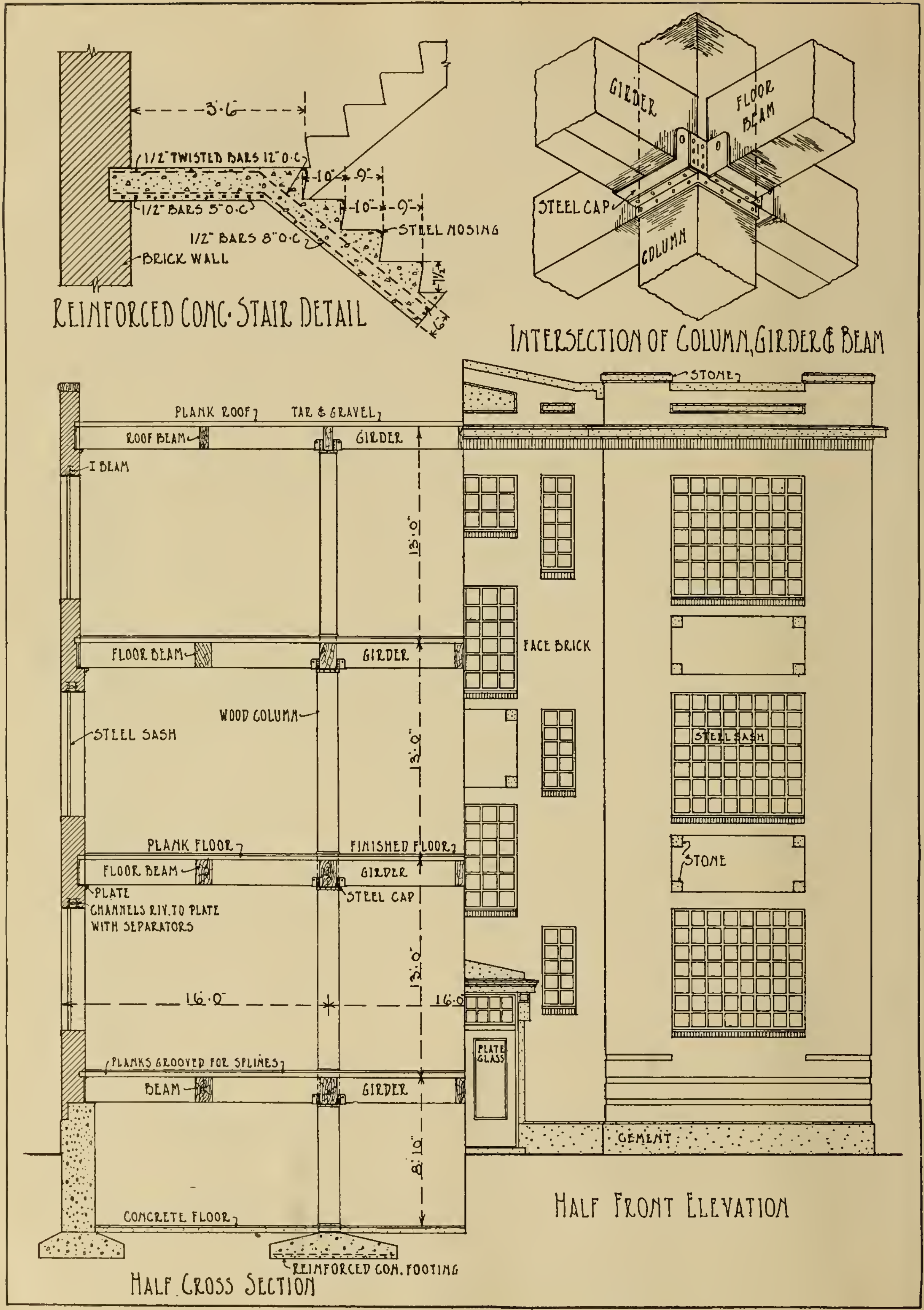
Floor Plan of Garage Showing the Arrangement of the Various Parts. The Front of the Building Contains a Display Room for Accessories and Show Cars. Back of This is the Stock Room and Office Which Can Be Easily Made Very Attractive from the Front. The Turntable in the Center Simplifies the Handling of Cars. There is a Commodious Shop at the Rear.


GUTTER
2"·4" BRIDGING BETWEEN EACH SPAN OF ROOF JOISTS.
PILASTER
½" RIVETS
COMPOSITION ROOFING
42 FT. RADIUS TO CENTER LINE
2-3"·3"·¼"L"
½" THICK GUSSET PLATES
TOP CHORD 2-6"·4"·⅜" ANGLES
CENTER LINES
½" RIVETS
LOWER CHORD 2-4"·4"·⅜" ANGLES
50'-0"
2-3"·3"·5/16" ANGLES
½" THICK GUSSET PL.
½" RIVETED JOINTS
2-3"·3"·¼" ANGLES
2"·8" ROOF JOIST 20" ON CENTERS
13" THICK BRICK WALL
GUTTER
·ELEVATION & PLAN VIEW SHOWING
CONSTRUCTION DETAILS OF A STEEL BOW-STRING TRUSS; THIS TYPE OF TRUSS ALTHO MORE COSTLY THAN WOOD HAS THE ADVANTAGE OVER THE LATTER IN STRENGTH AND FIRE RESISTING QUALITIES.
16"·24"·1" STEEL BEARING PLATES FOR ALL TRUSS SUPPORTS.
4"·8"·1" PILASTER PROJECTIONS UNDER EACH TRUSS
COMPOSITION ROOFING
2"·8" ROOF JOISTS 20" O.C.
1"·6" MATCHED ROOF BOARDS
2"·6" PLATE BOLTED TO TOP CHORD
8'-0"
½" STEEL BRACING RODS
TURNBUCKLES
16'-0"
·DETAIL SHOWING METHOD OF LATERAL TRUSS BRACING· ANGLE IRONS CAN ALSO BE USED FOR THIS PURPOSE.
4½"-12"-4½"-12"-4½"-12"-4½"-12"-4½"-12"-4½"
8"
16"
DETAIL OF COMBINATION TILE & REINFORCED CONCRETE FLOOR OVER BOILER & FUEL ROOM FIGURED TO CARRY A SAFE LOAD OF 250 LBS. PER SQ. FT. WITH ⅞" SQ. REINFORCING BARS.
¾" DARS SPACED 12" ON CENTERS ON TOP
¾" DARS SPACED 6" ON CENTERS
8"
DETAIL OF SOLID REINFORCED CONCRETE FLOOR SLAB OVER BOILER & FUEL ROOM; WITH THE USE OF BEAMS AT 12 FT. INTERVALS THICKNESS OF SLAB COULD BE REDUCED TO 5". SLAB FIGURED TO CARRY 250 LBS. PER SQ. FT.
DETAIL SHOWING METHOD OF HOLDING ROOF JOISTS IN PLACE BY MEANS OF 3"·3"·¼" ANGLE CLIPS
ANGLE CLIPS BOLTED TO TOP CHORD
2"·6" BOLTED ONTO TOP CHORD
DETAIL SHOWING METHOD OF HOLDING ROOF JOISTS IN PLACE BY MEANS OF 4"·4"·2" WOOD ANGLE BLOCKS

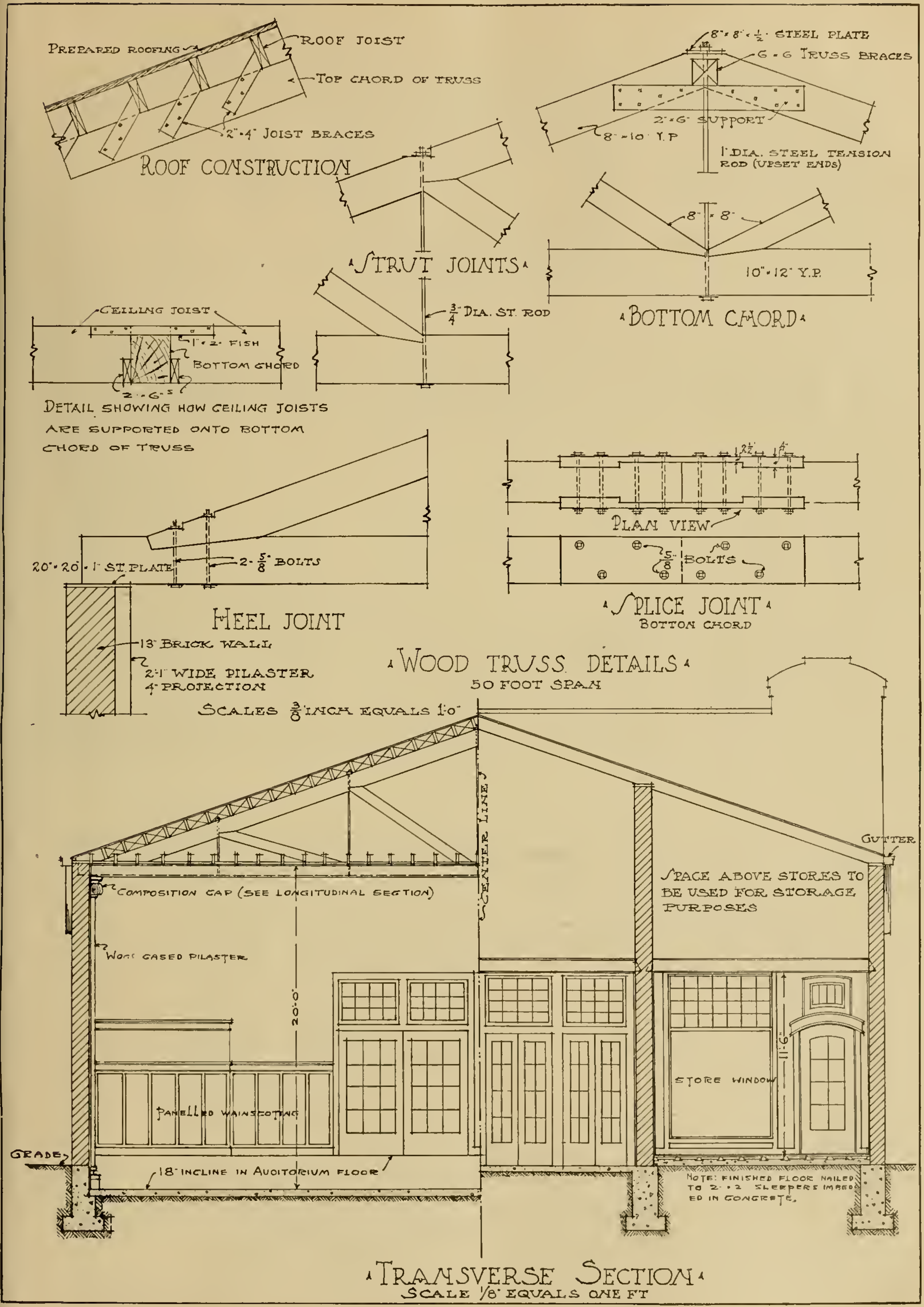
Details of Light Steel Truss for 50-Foot Span Curving Roof Garage, Also of Concrete Floor Over Heating Room in Public Garage.


6" THICK FLOOR SLABS REINFORCED WITH ½" TWISTED BARS LAID 12" & 4" ON CENTERS RESPECTIVELY.
STIRRUPS
ALL CORNERS & EDGES CHAMFERED
1" TW. BARS
¾" TWISTED BARS
¼" SPIRAL REINFORCEMENT IS HELD IN PLACE BY 3 SPACERS BETWEEN EIGHT 1" RODS.
PLAN VIEW SHOWING COLUMN REINFORCEMENT.
TYPICAL FLOOR & COL. REINF.
SCALE ⅜" EQUALS 1 FOOT.
4'-0"
9"
½" TW. TOP BARS 12" O.C.
½" BARS 5" O.C.
½" BARS 8" O.C.
10"
TOP BARS ½" TW. 12" O.C.
7½"
6"
12" BRICK WALL
TYPICAL REINFORCED CONCR. STAIRWAY DETAIL; TO BE CAST IN CONJUNCTION WITH FLOOR SLABS AND NOT SEPARATE
SCALE ⅜" EQUALS 1 FOOT.
WHITE ENAMEL TERRA COTTA COPING.
GREEN T.C.
WHITE T.C.
BRICK 1" PROJECTION
NOTE: ROOF SLAB PITCHES 18 INCHES FROM FRONT & REAR TO DOWN SPOUT AT CENTER OF BUILDING.
TAR & GRAVEL ROOF
FLASHING BLOCK
1'-6"
1'-0"
PIVOTED VENTILATING SASH
STEEL SASH
PIVOTED SASH
13'-0"
1'-8"
BRICK
BRICK 1" PROJ.
6" THICK REINF. CONCRETE FLOOR SLABS
7'-0"
14'-0"
CENTER LINE
13'-6"
NOTE: PILASTERS PROJECT 9"
2'-0"
4"-4" T.C. BLOCK 1" PR.
NOTE: ENTIRE FRONT FACED WITH RED FACE BRICK.
WHITE ENAMEL TERRA COTTA
PLATE GLASS
BRICK ROWLOCK
6" THICK REINFORCED CONC. FL. SLAB (SEE DET)
BLUE GRANITE TERRA COTTA
3'-6"
8'-6"
SIDEWALK LEVEL
8 FT. SQ. REINF. CONC. FTG.
HALF FRONT ELEVATION
HALF CROSS SECTION
SCALE ⅛ INCH EQUALS ONE FOOT.

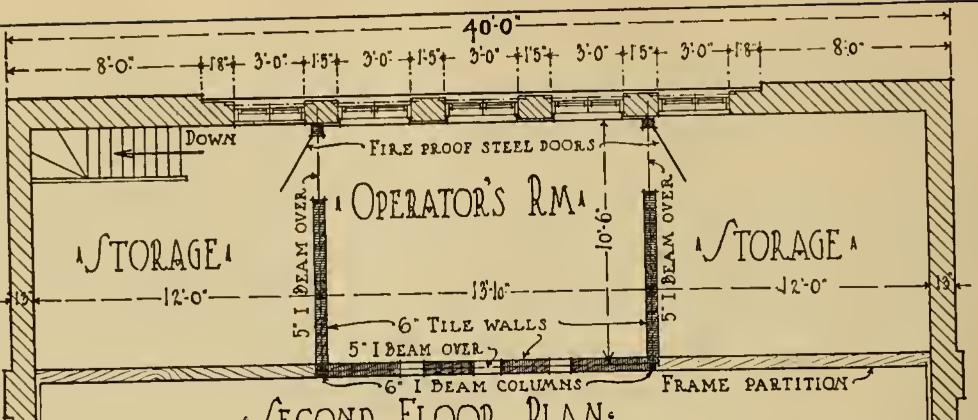
Details of Reinforced Concrete Factory Building. Reinforcing of Floors, Girders, and Columns Are Shown and Also Arrangement of Exterior Finish.



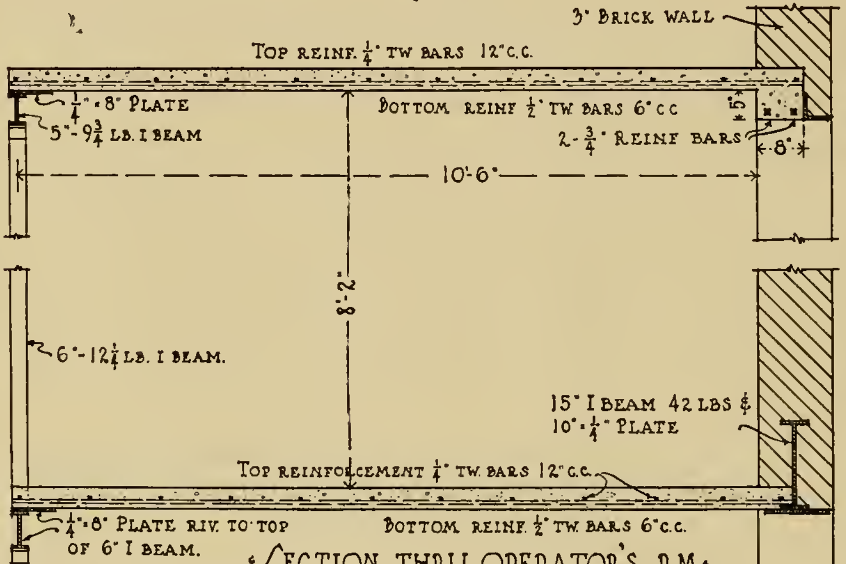
Working Details Standard Mill Construction Factory Building.



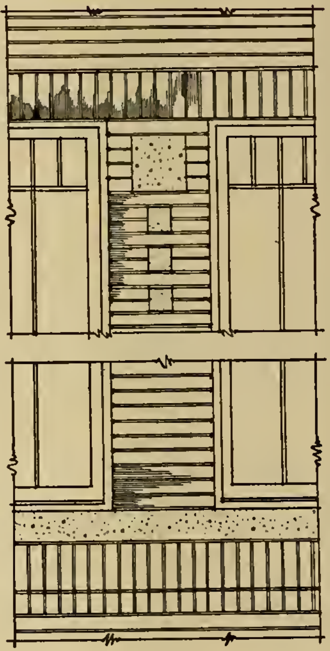
Details of Construction of Modern Photo Play House.

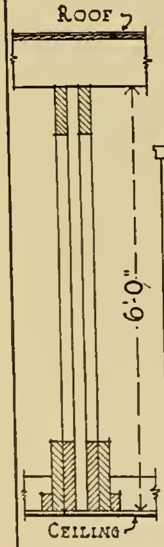


·Second Floor Plan·
$\frac{1}{8}$" Scale

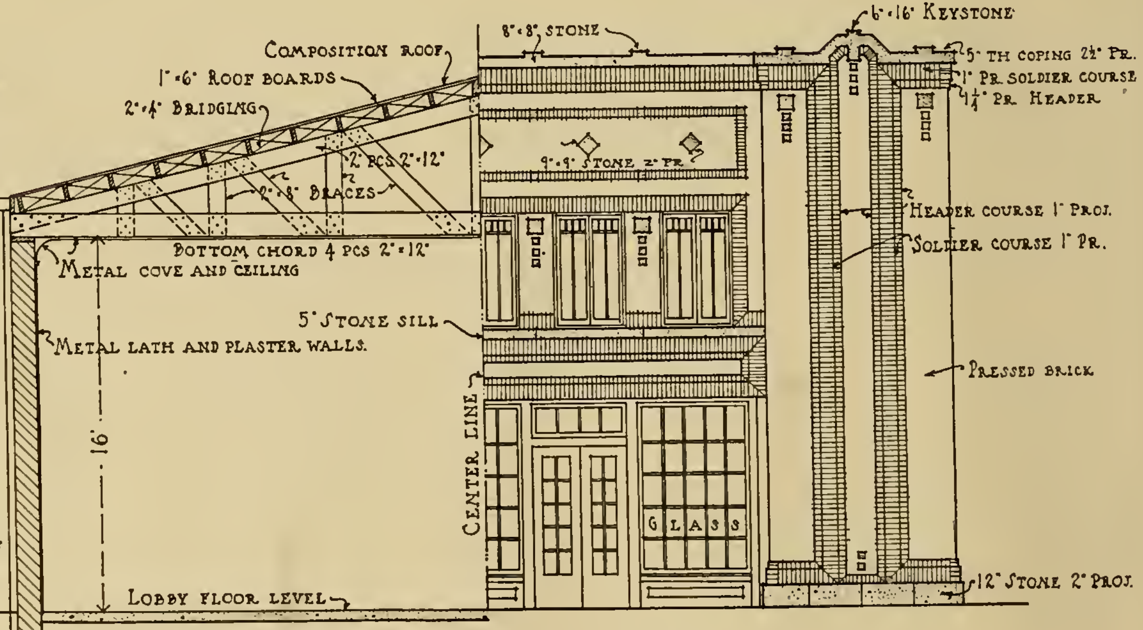

3" Brick wall
Top reinf. $\frac{1}{4}$" TW bars 12" c.c.
$\frac{1}{4}$" × 8" Plate
5"-9$\frac{3}{4}$ lb. I beam
Bottom reinf $\frac{1}{2}$" TW bars 6" c c
2-$\frac{3}{4}$" Reinf bars
5"
8"
10'-6"
8'-2"
6"-12$\frac{1}{4}$ lb. I beam.
15" I beam 42 lbs & 10" × $\frac{1}{4}$" plate
Top reinforcement $\frac{1}{4}$" TW bars 12" c.c.
$\frac{1}{4}$" × 8" Plate riv. to top of 6" I beam.
Bottom reinf. $\frac{1}{2}$" TW bars 6" c.c.
6" I beam column

·Section thru Operator's Rm·
Showing method of constructing a fire-proof moving picture machine operator's compartment



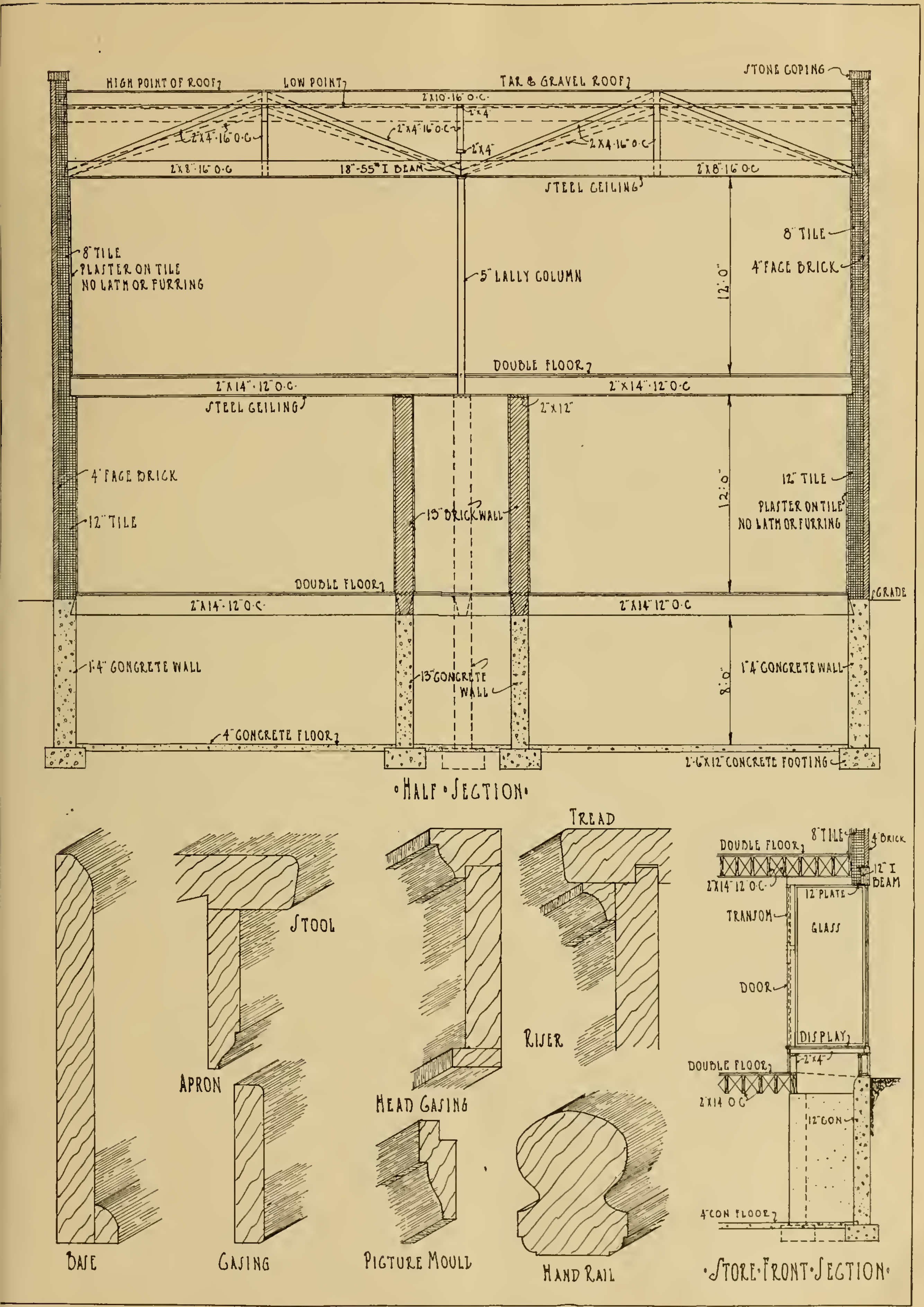


Truss Section
$\frac{3}{4}$" Scale

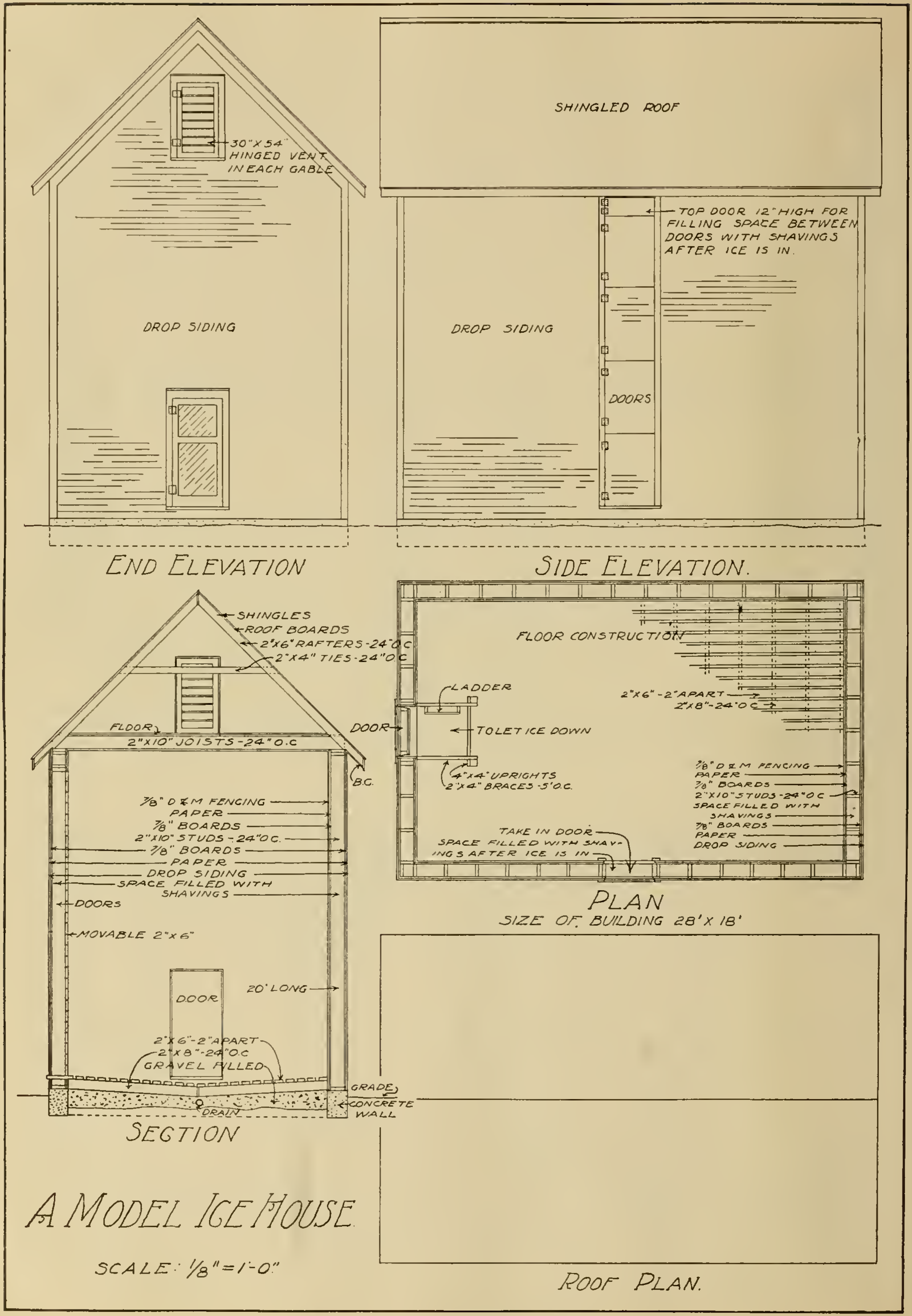


·Cross Section· ·Half Front Elevation·
Scale $\frac{1}{8}$ inch equals one foot

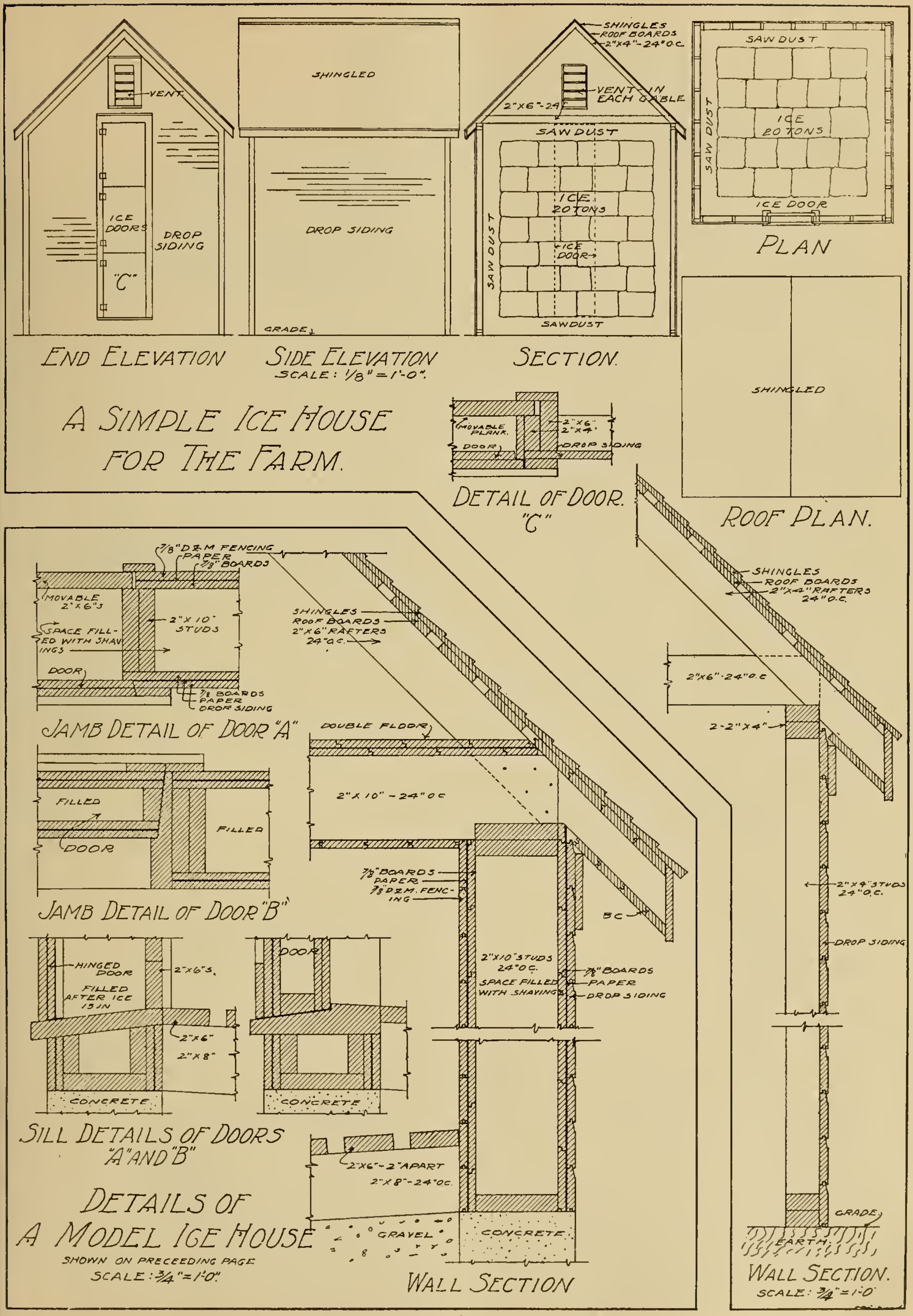
Details of Construction of One-Story Theater. An Up-to-Date Business Attracting Front is Provided and the Operator's Room is of Fireproof Construction.



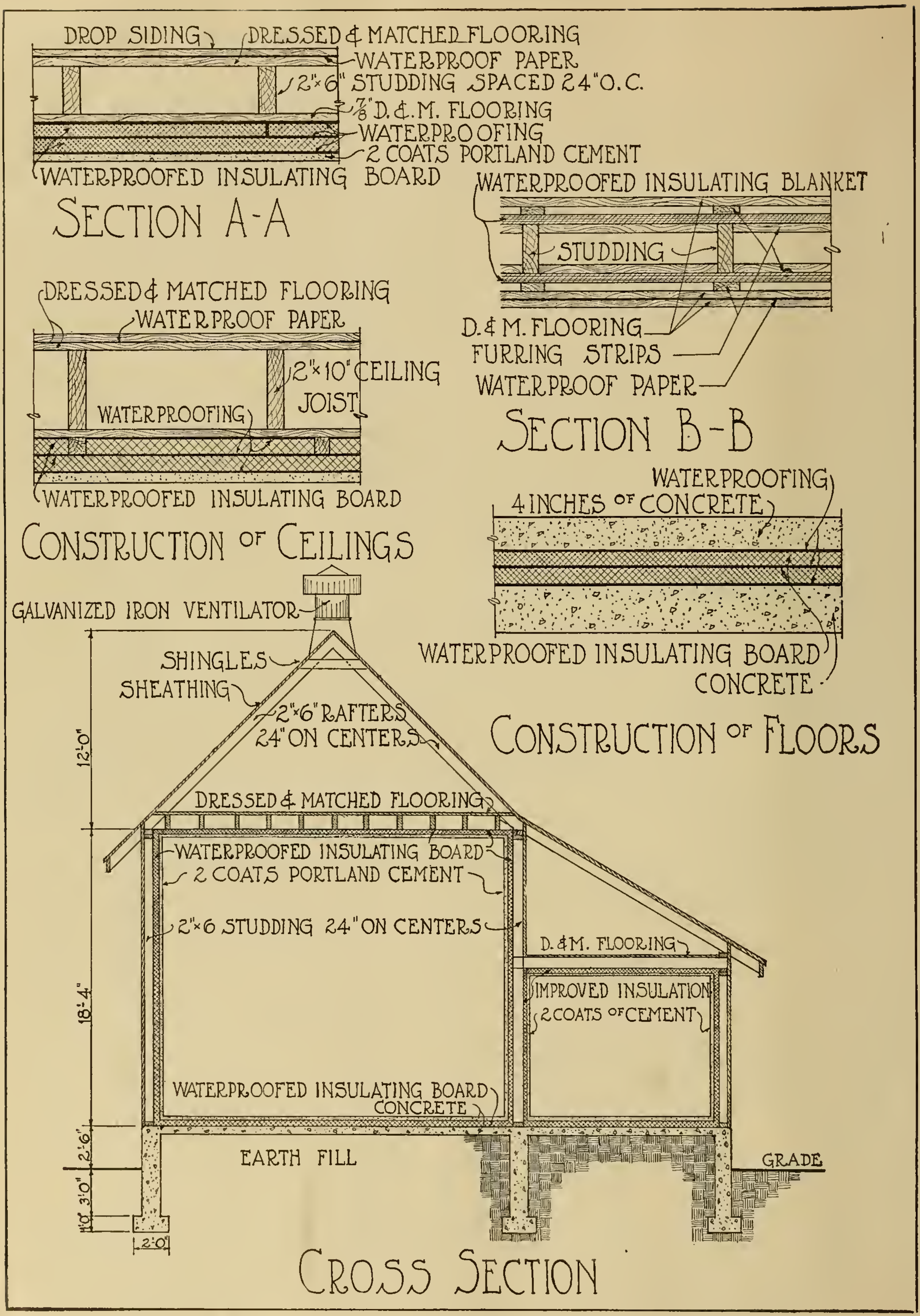
Details of Construction and Finish of Stores with Lodge Hall Above.



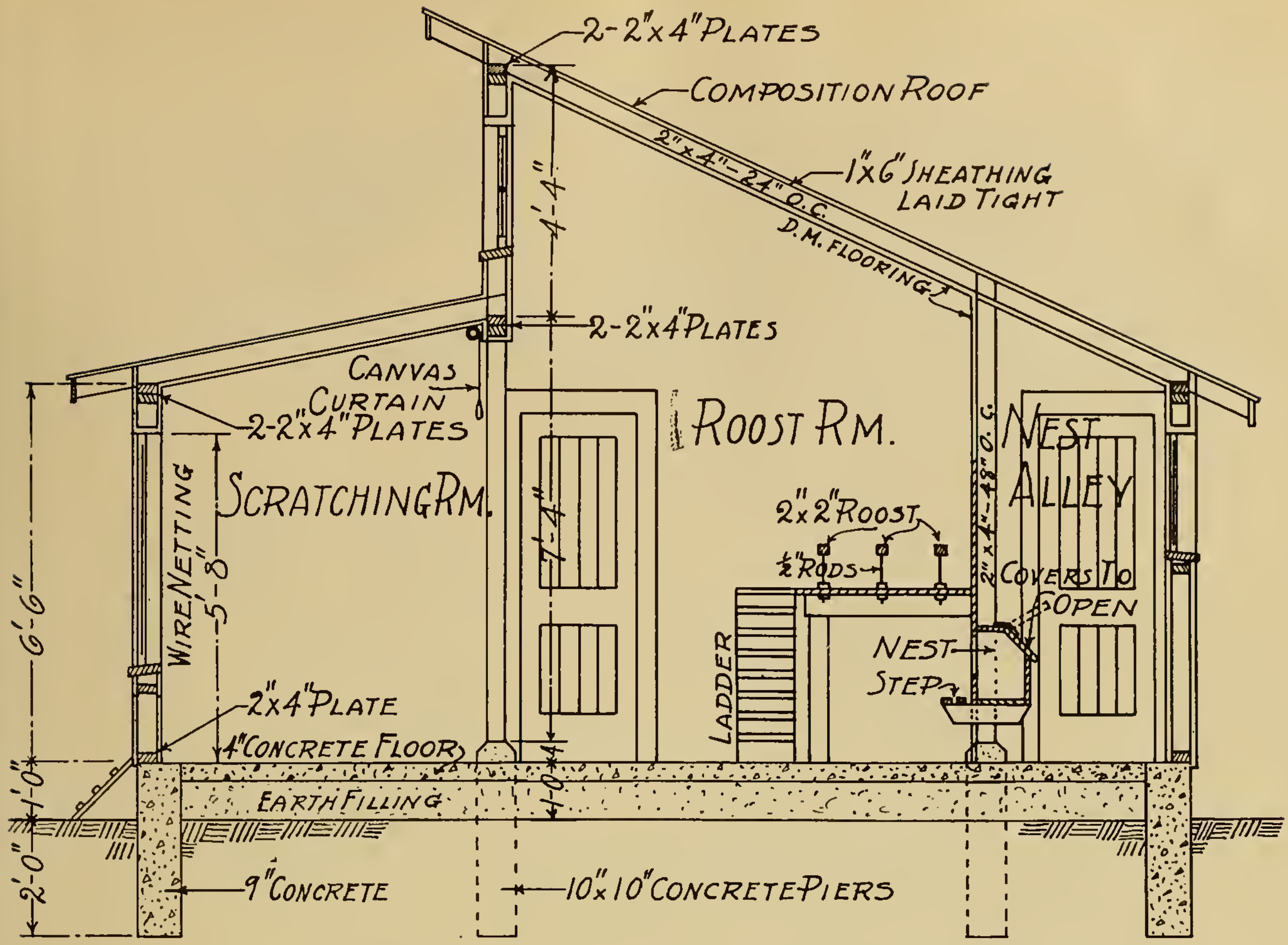
Design and Arrangement for Model Ice House.



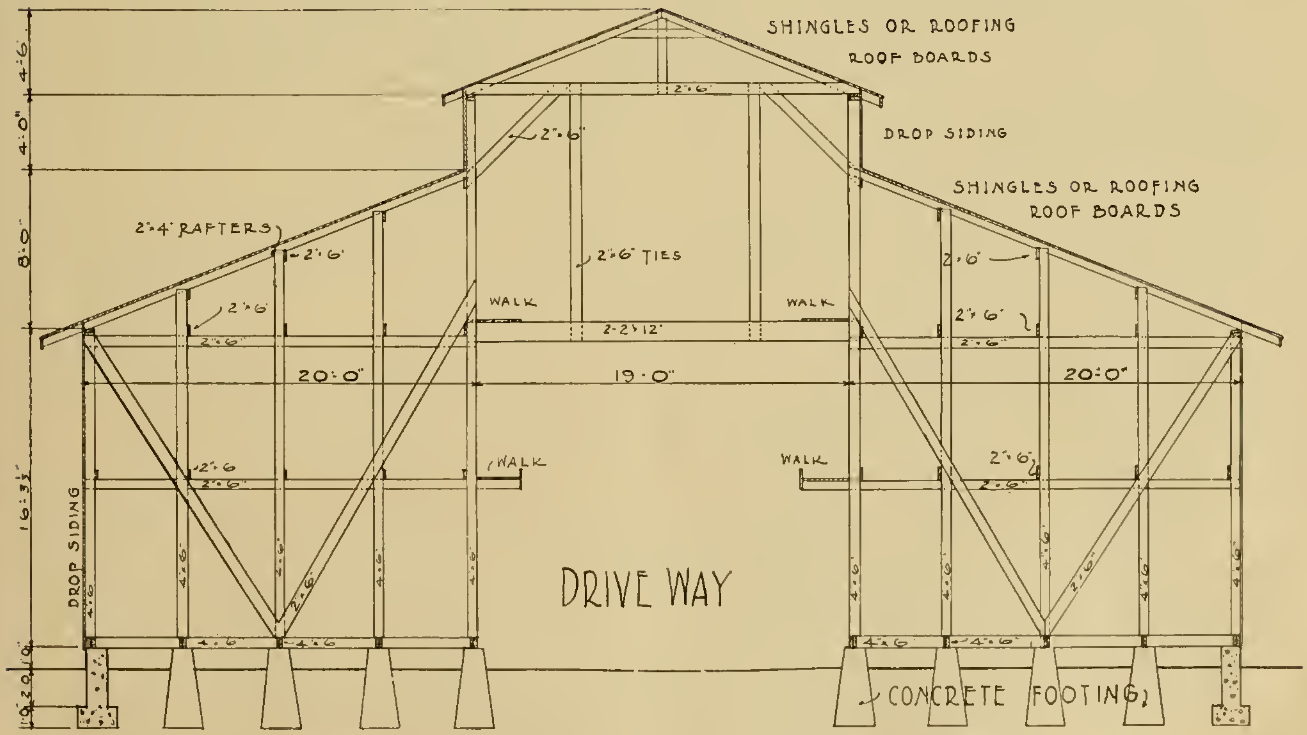
Design and Details of Simple Farm Ice House.



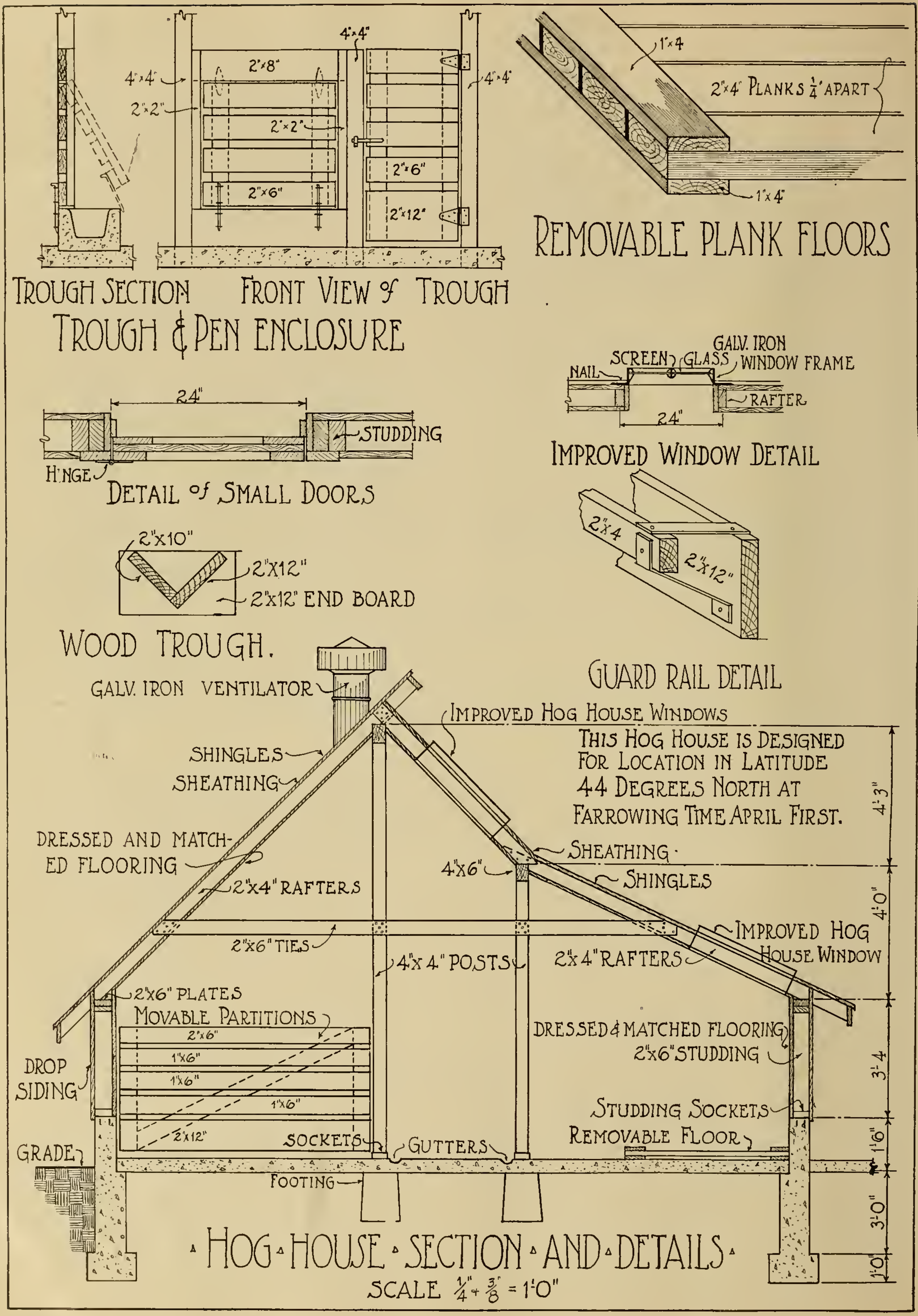
Details of Construction of Community Cold Storage Plant and Ice House, Showing Special Insulation.



CROSS SECTION OF POULTRY HOUSE



Cross-Section of Lumber Yard Shed, Showing Approved Method of Construction.

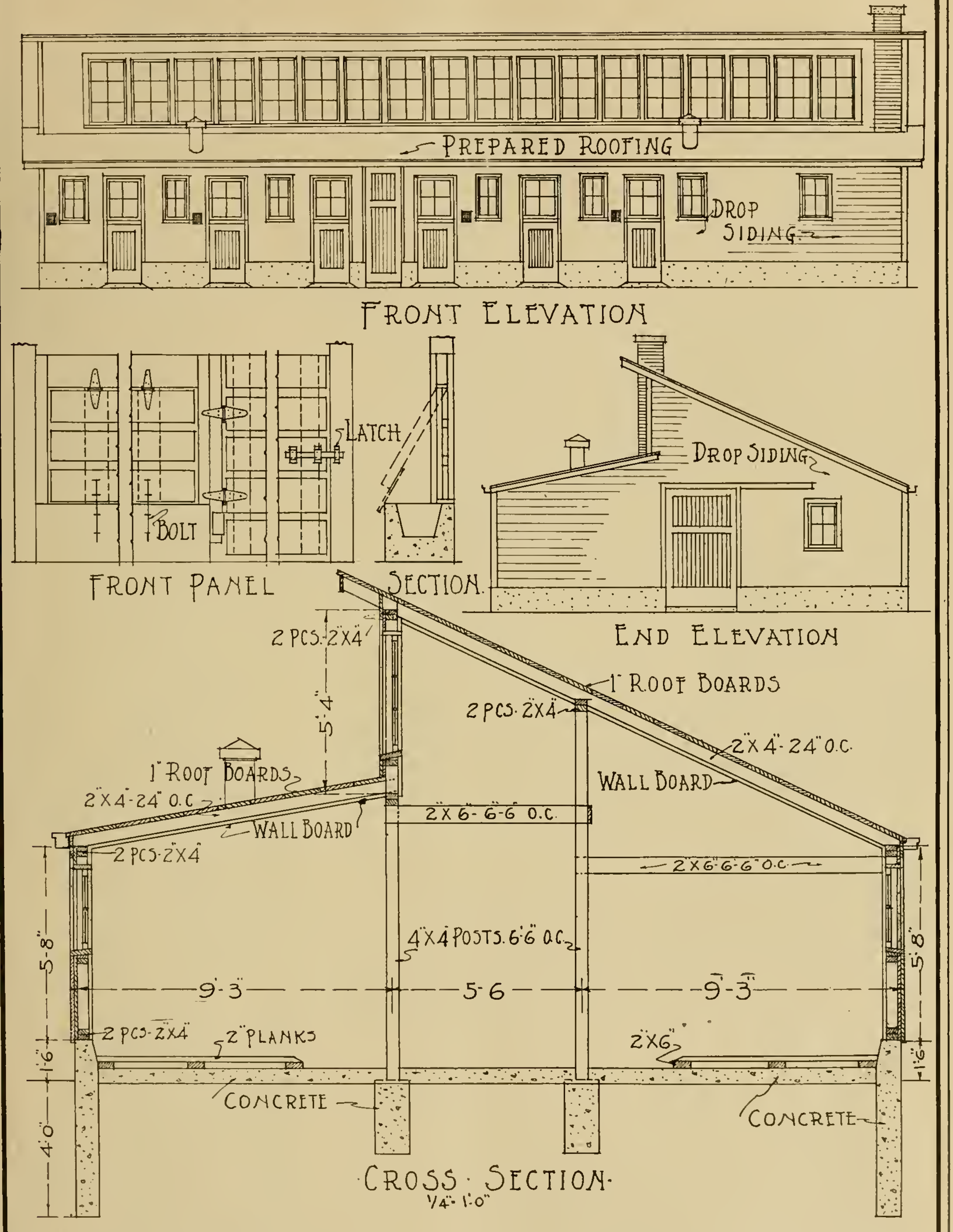


THIS HOG HOUSE IS DESIGNED FOR LOCATION IN LATITUDE 44 DEGREES NORTH AT FARROWING TIME APRIL FIRST.

HOG HOUSE SECTION AND DETAILS

SCALE ¼" + ⅜" = 1'-0"

Details of Winter Hog House of Modified Saw-Tooth Roof Type. Face This Building Toward the South, and It Will be Warm and Well Lighted All Winter.



COMMUNITY HOG HOUSE WITH CONCRETE YARDS.

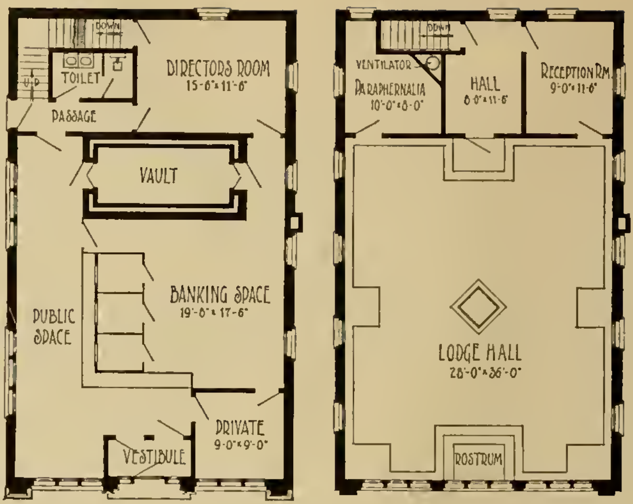
Working Drawings of Community Hog House Design. Elevations Drawn to Scale ⅛ Inch Equals One Foot. Cross Section Detail, ¼ Inch Equals One Foot

Bank Building and Lodge Hall

SINCE the building which is to contain a banking business and lodge hall is sure to become the center of business and social activities among the men in the community in which it is erected such a building should be somewhat out of the class of commonplace structures. Good substantial construction to which is added the necessary artistic treatment required to place it in somewhat of a class by itself are the most important of the several factors to be considered in the design of such a building. The finish of the exterior may be made very impressive by the use of ornamental face brick with terra cotta trim. The use of these materials has come to be standard in city construction and there is nothing which impresses the stranger with the progressiveness of a town more than to see the business section being built up with structures in which these modern materials are used.

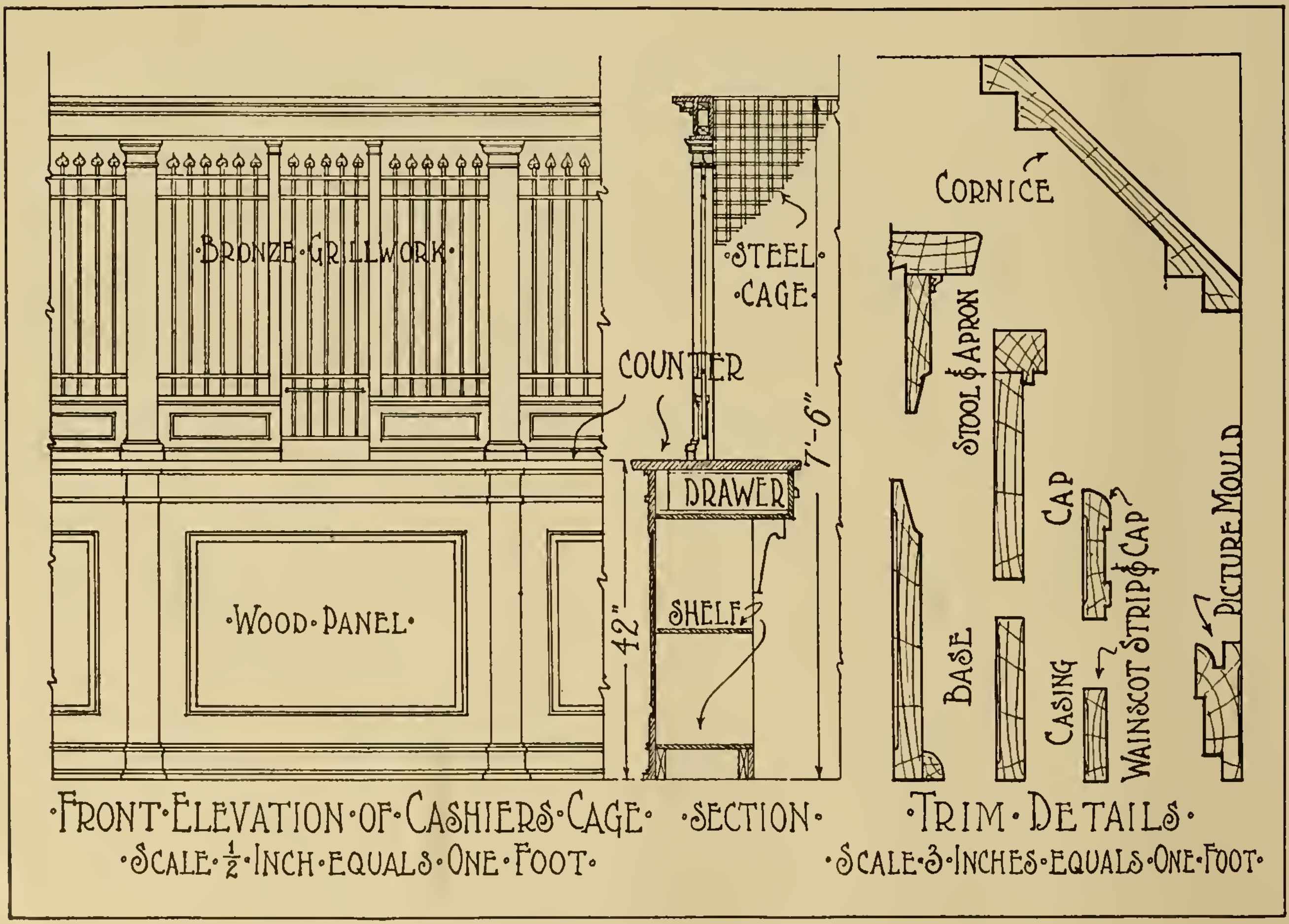
The building illustrated here occupies a corner lot and is 30 by 50 feet. The entire first floor is designed as a bank and the second floor is taken up by the lodge hall. The ornamental front is placed on the 30-foot side of the building. The portions of the front wall above the first floor windows and between the sets of second floor windows are finished with face brick while the entrance, columns and entablature are built of terra cotta. The small-paned windows add a great deal to the distinctive appearance of the building. There is a sufficiently elaborate treatment given all of the details to mark this building as one of importance among the various structures along the street upon which it would be placed.

The heavy brass trimmed door of the bank opens into a small vestibule in which there are entrance and exit doors connecting with the main corridor. At the right upon entering is a private office having doors both into the public square and into the banking space. Three cages are placed facing the side wall of the building and bounding the main corridor near the front of the bank. These cages are built up of wood panels from the floor to the counter, which extends from the private office along the side of the first cage and along the front of the three cages down the corridor. Above the counter there is a bronze grillwork on the outside of the cages and steel lattice partitions are used between cages.

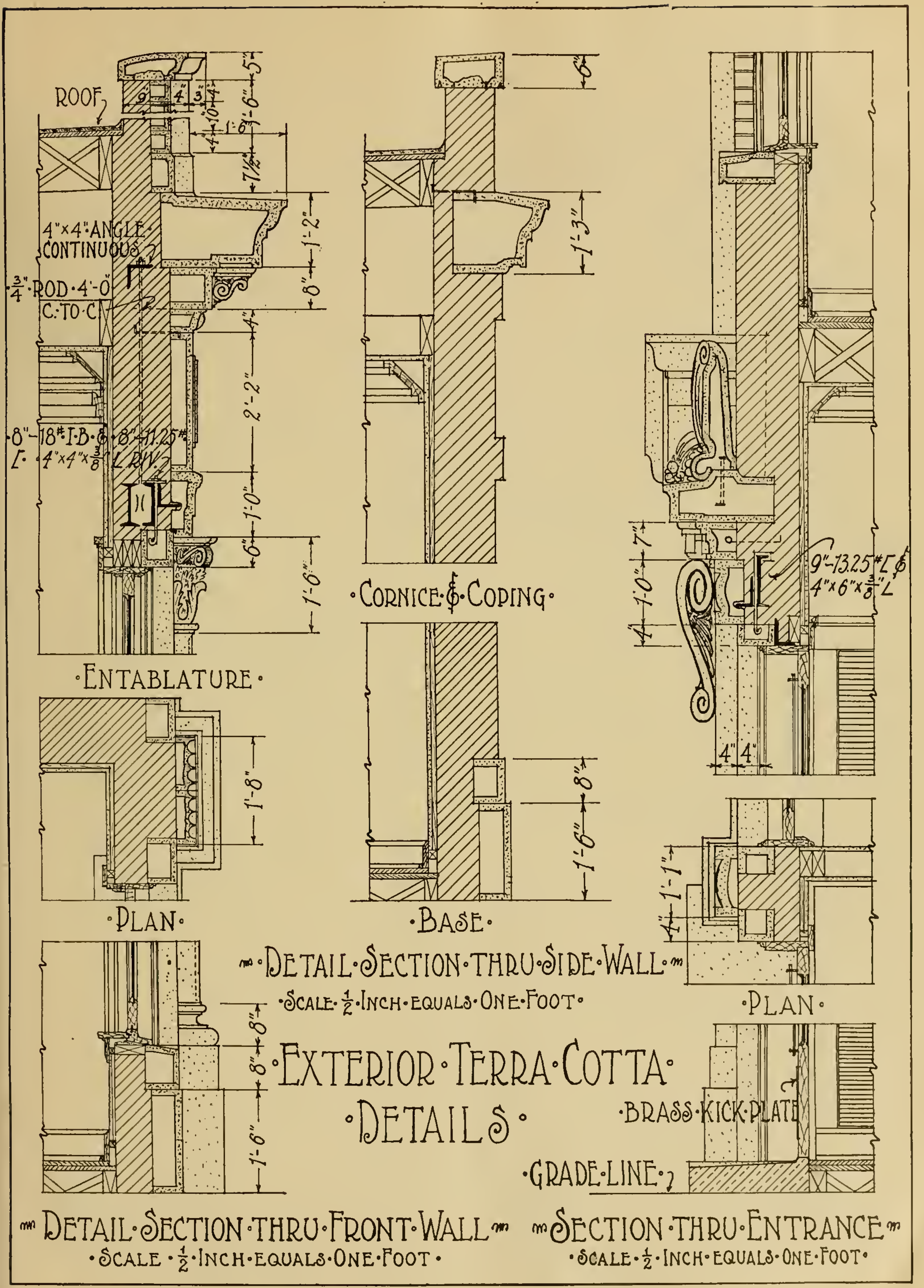


First Floor Plan. **Second Floor Plan.**

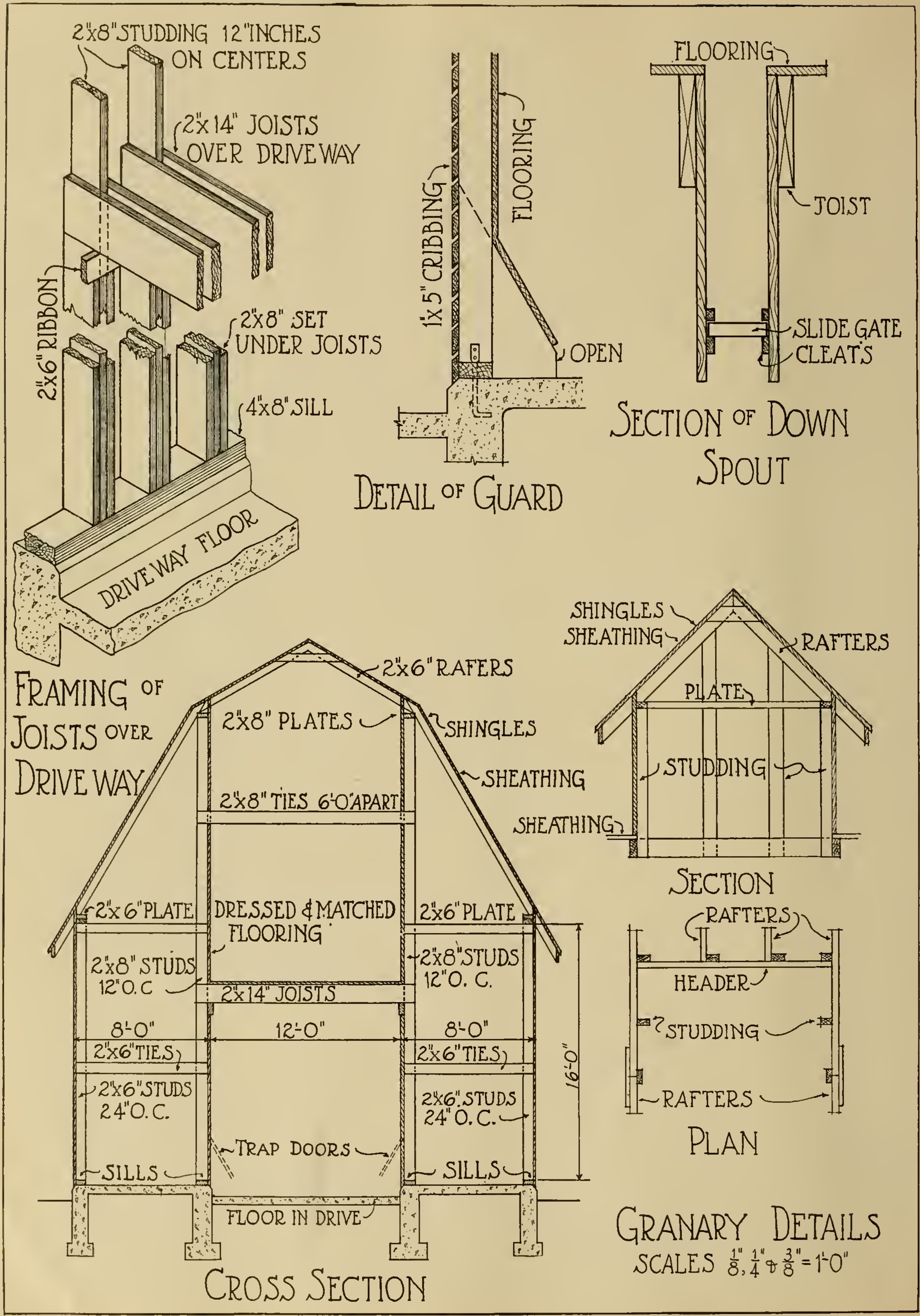
Arrangement of Bank Building.



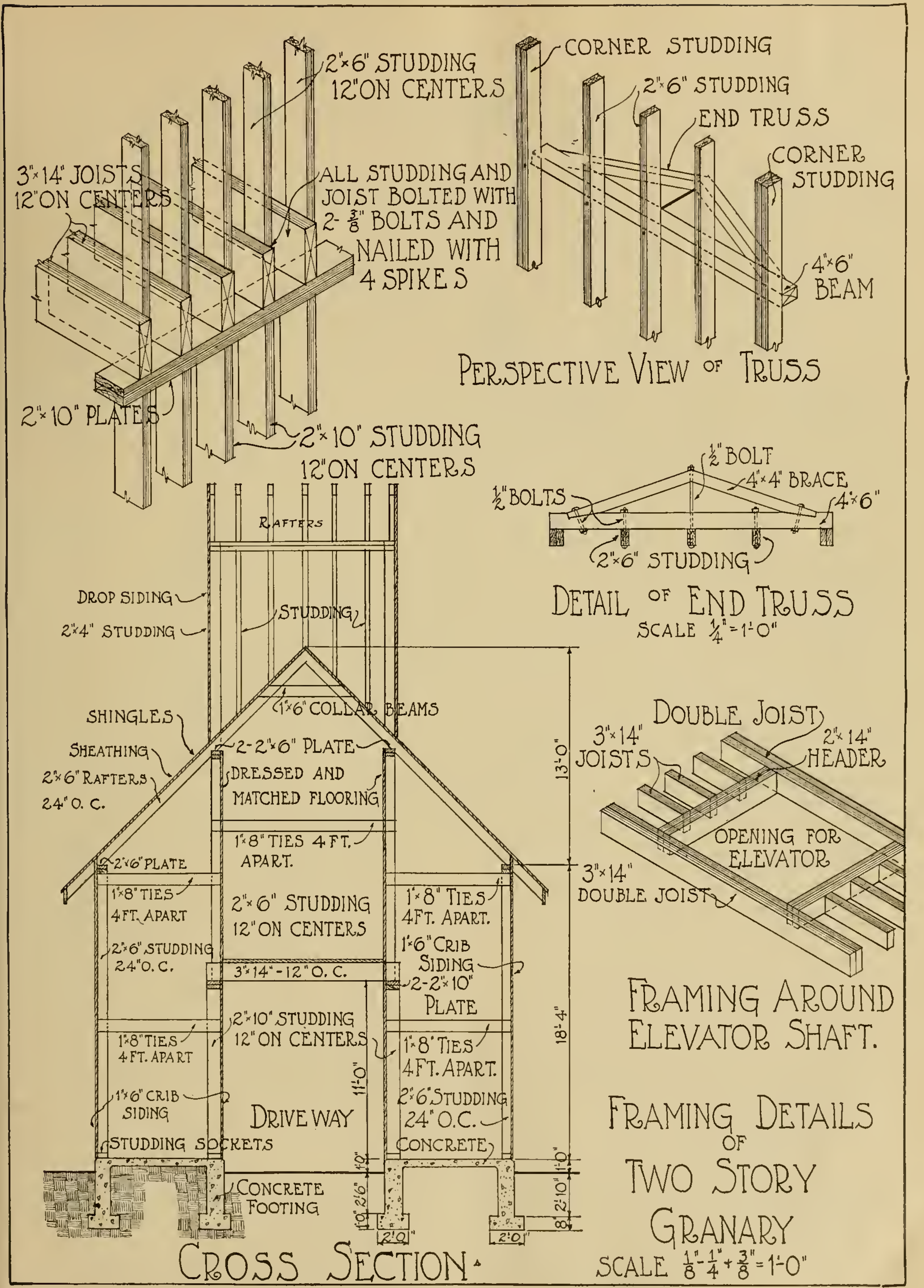
Front Elevation of Cashier's Cage and Trim Details in Bank Building.



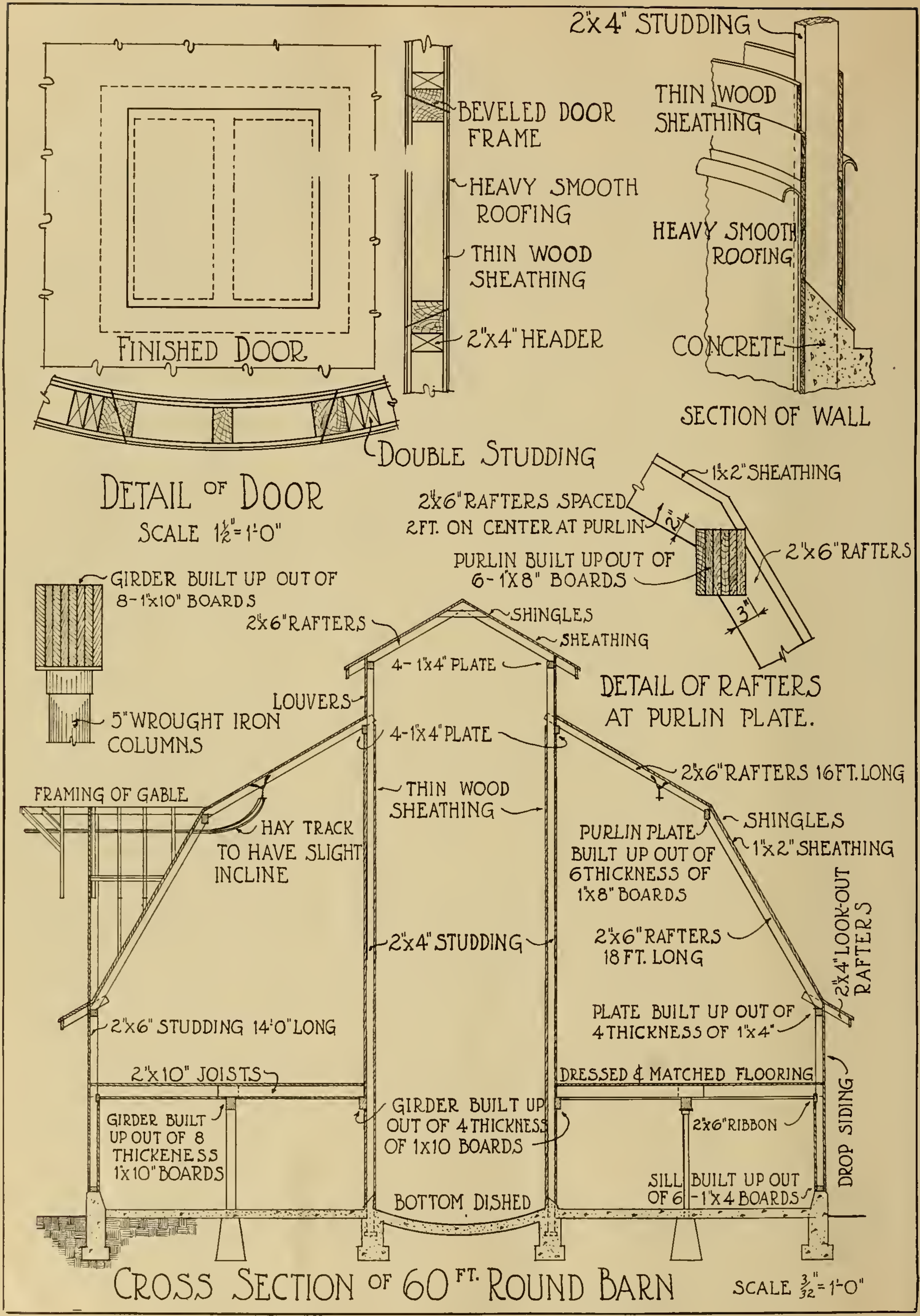
Details of Terra Cotta Ornamentation on Exterior of Bank Building.



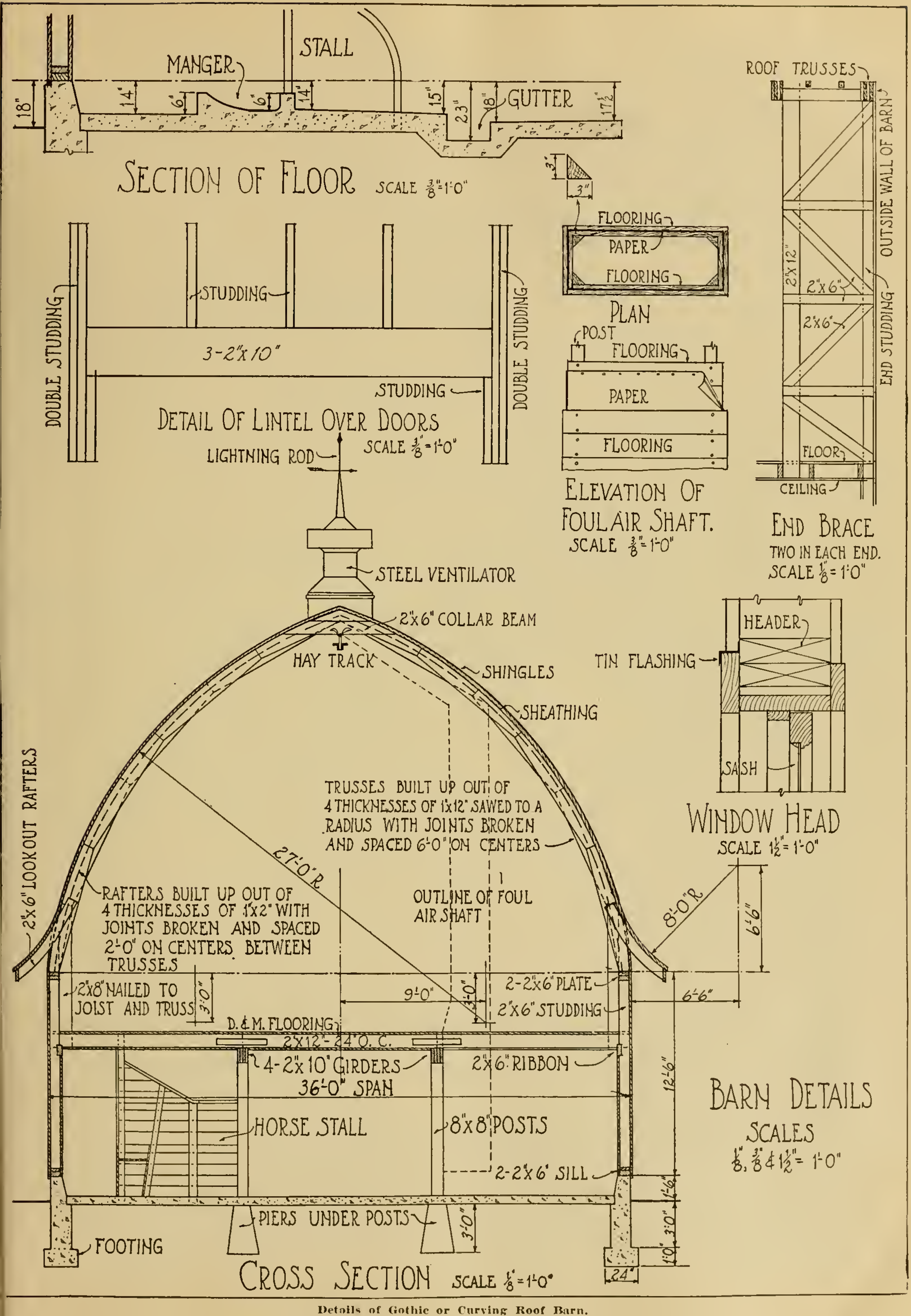
Construction Details of Two-Story Gambrel Roof Corn Crib and Granary.



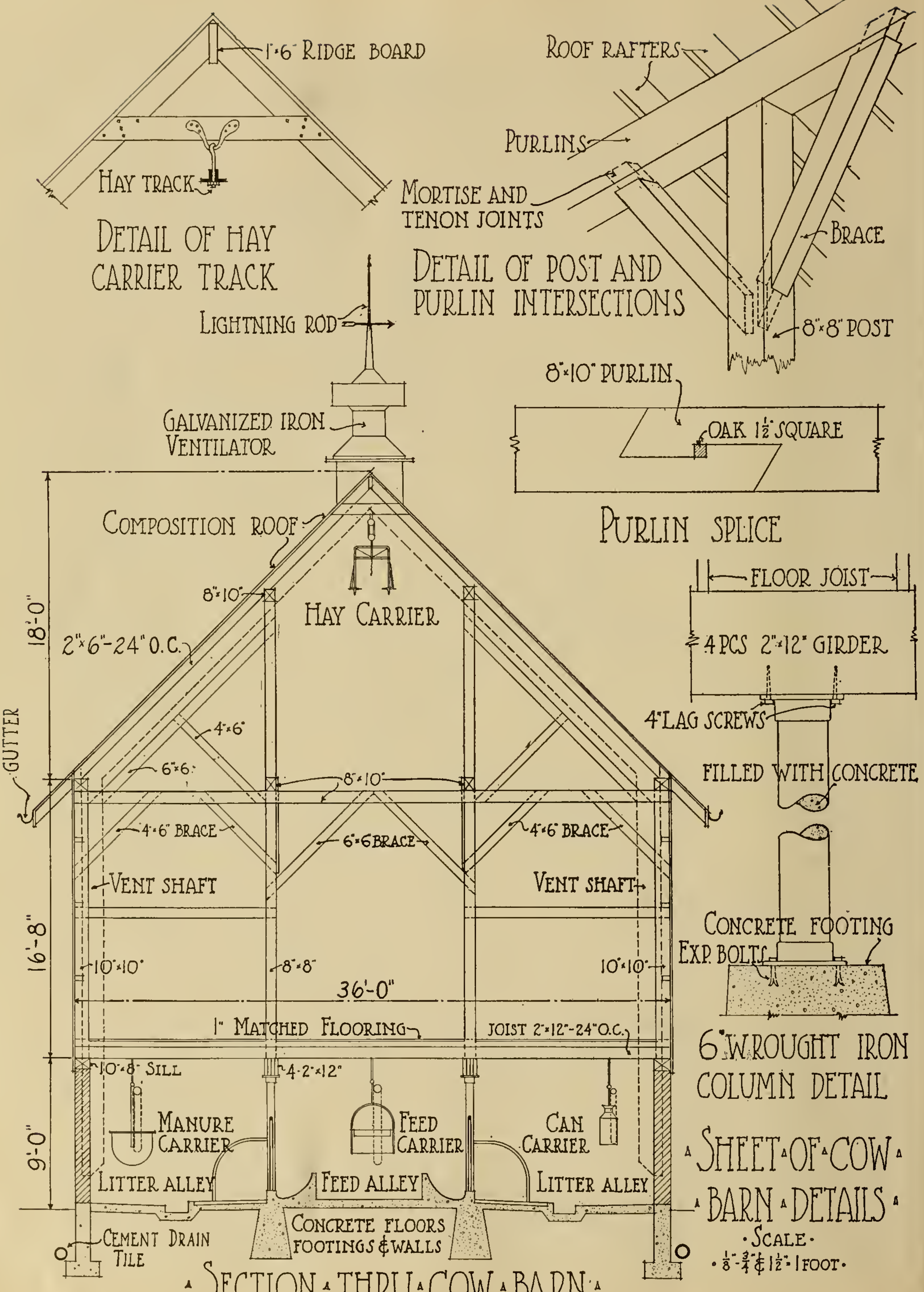
Details of Construction of Two-Story Gable Roof Combined Corn Crib and Granary.


FINISHED DOOR
BEVELED DOOR FRAME
HEAVY SMOOTH ROOFING
THIN WOOD SHEATHING
2"x4" HEADER
DOUBLE STUDDING
DETAIL OF DOOR
SCALE 1½"=1'-0"
2"x4" STUDDING
THIN WOOD SHEATHING
HEAVY SMOOTH ROOFING
CONCRETE
SECTION OF WALL
1"x2" SHEATHING
2"x6" RAFTERS SPACED 2FT. ON CENTER AT PURLIN
2"
PURLIN BUILT UP OUT OF 6-1"X8" BOARDS
2"x6" RAFTERS
3"
DETAIL OF RAFTERS AT PURLIN PLATE.
GIRDER BUILT UP OUT OF 8-1"x10" BOARDS
5" WROUGHT IRON COLUMNS
2"x6" RAFTERS
SHINGLES
SHEATHING
4-1"x4" PLATE
LOUVERS
4-1"x4" PLATE
2"x6" RAFTERS 16FT. LONG
FRAMING OF GABLE
HAY TRACK TO HAVE SLIGHT INCLINE
THIN WOOD SHEATHING
PURLIN PLATE BUILT UP OUT OF 6THICKNESS OF 1"x8" BOARDS
SHINGLES
1"x2" SHEATHING
2"x4" STUDDING
2"x6" RAFTERS 18 FT. LONG
2"x4" LOOK-OUT RAFTERS
PLATE BUILT UP OUT OF 4THICKNESS OF 1"x4"
2"x6" STUDDING 14'-0" LONG
2"x10" JOISTS
DRESSED & MATCHED FLOORING
GIRDER BUILT UP OUT OF 8 THICKENESS 1"x10" BOARDS
GIRDER BUILT UP OUT OF 4 THICKNESS OF 1x10 BOARDS
2"x6" RIBBON
DROP SIDING
BOTTOM DISHED
SILL BUILT UP OUT OF 6-1"x4 BOARDS
CROSS SECTION OF 60 FT. ROUND BARN
SCALE 3/32"=1'-0"

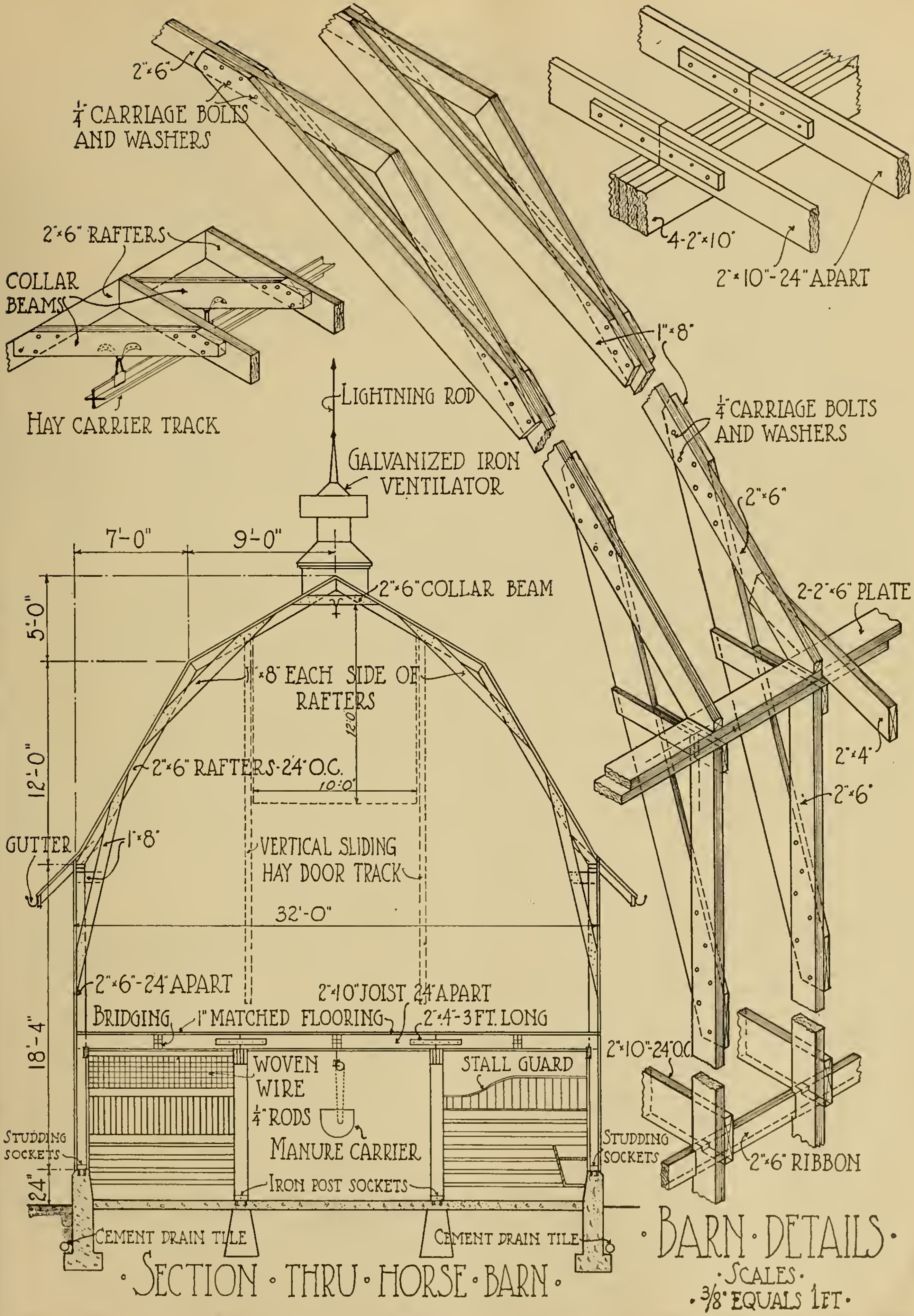
Details of Construction of 60-Foot Diameter Barn with Central Silo.



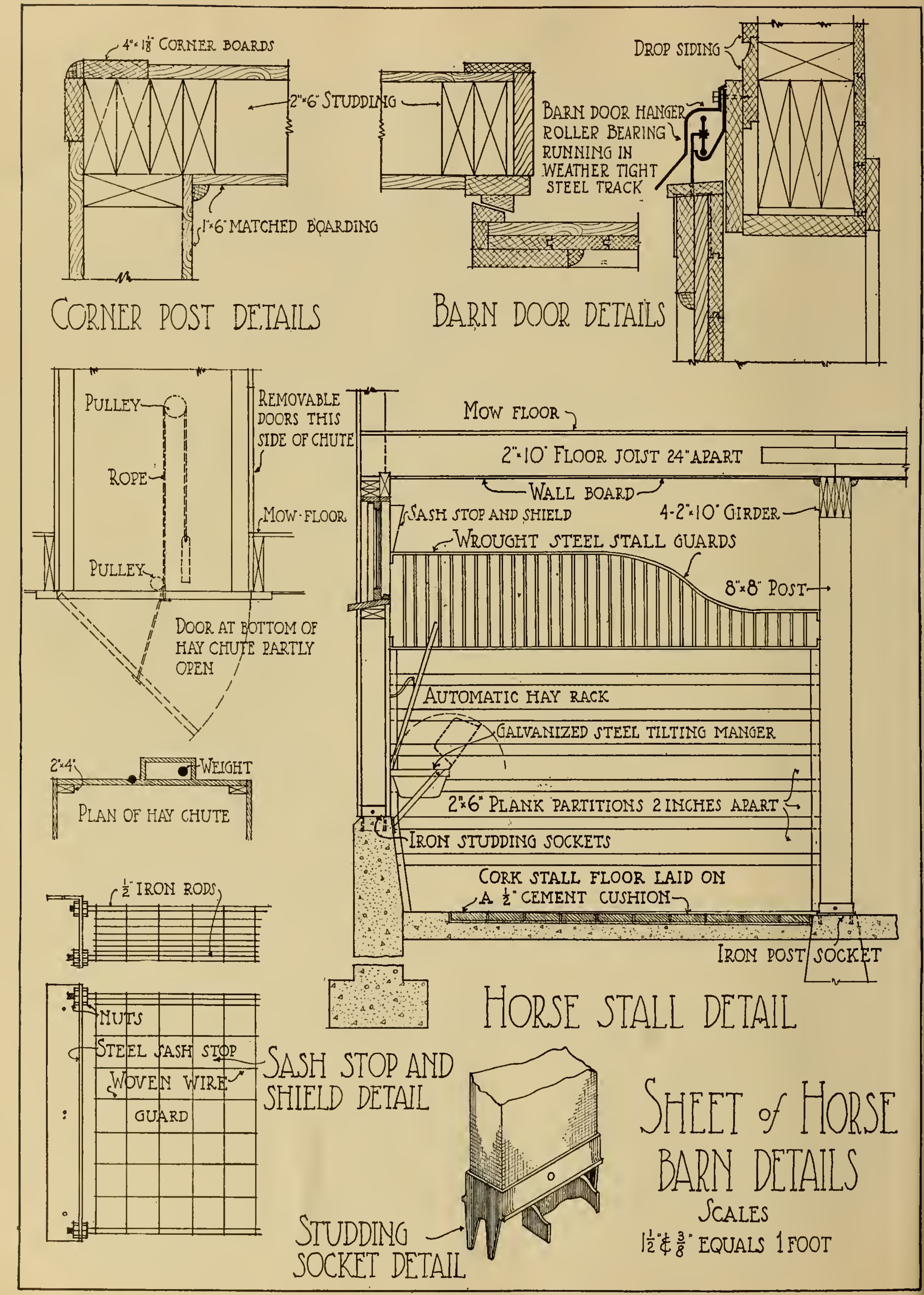
Details of Gothic or Curving Roof Barn.



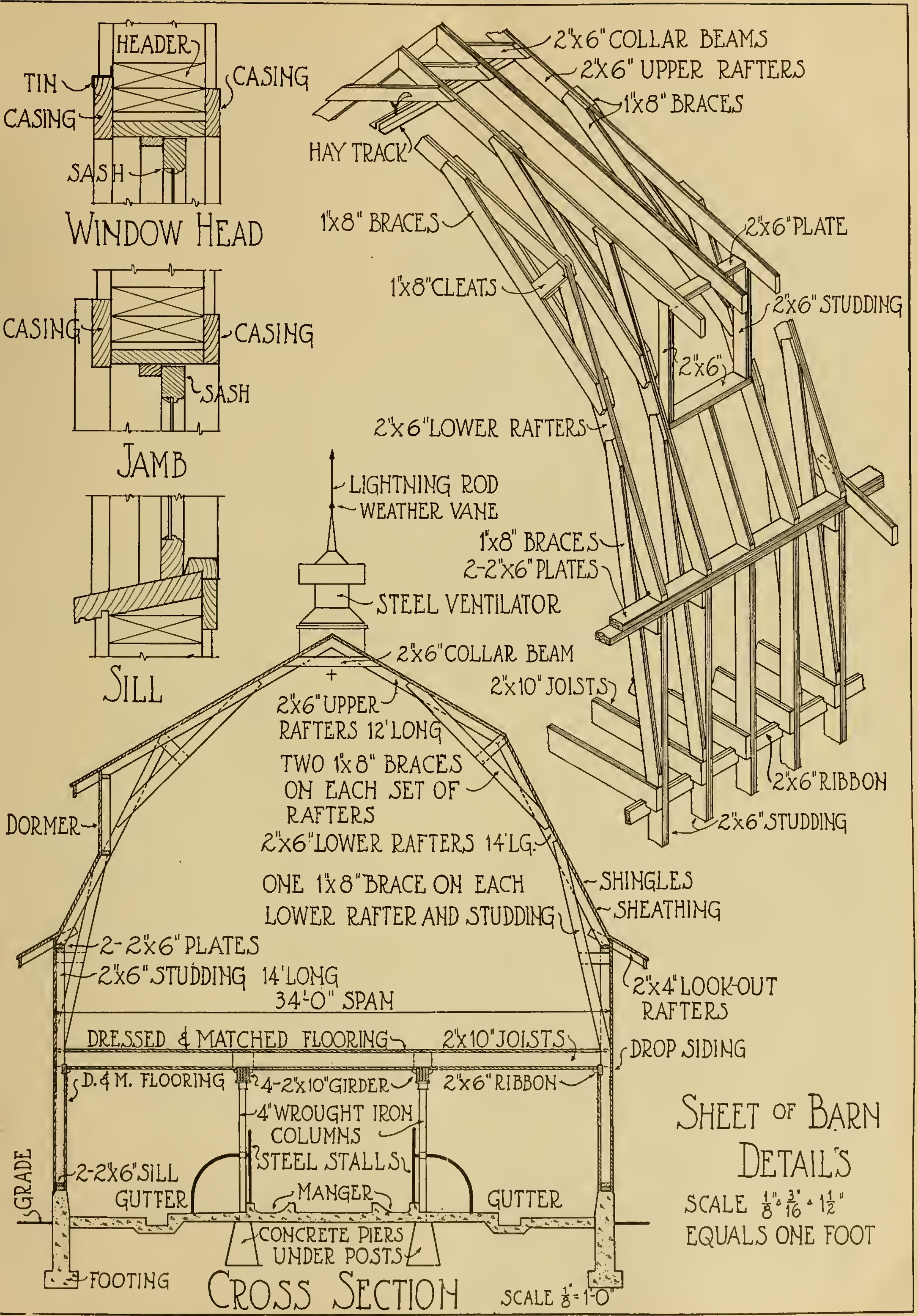
Heavy Timber Framing Details for Remodeled Dairy Barn.



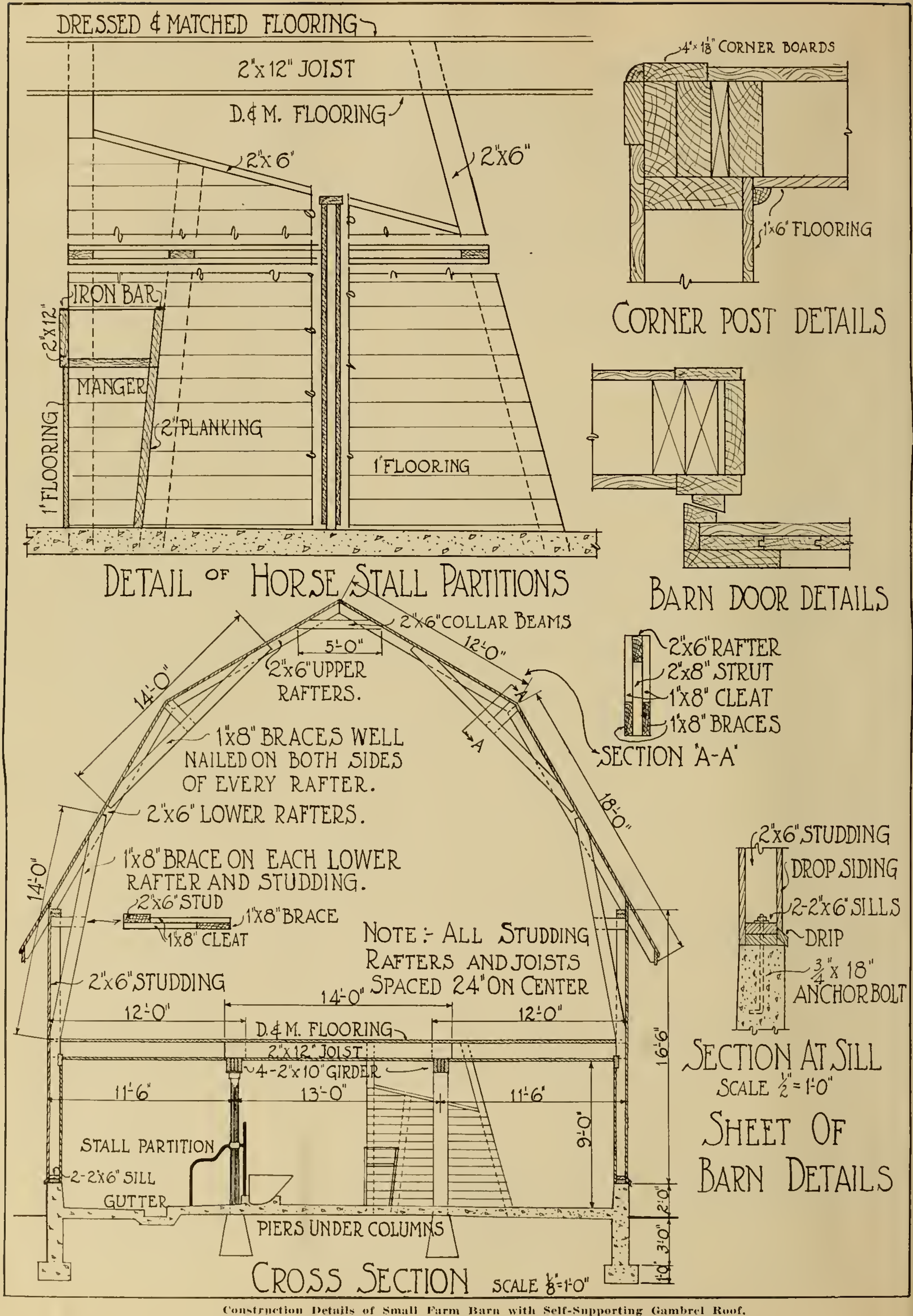
Details of Horse Barn. Roof Is Self-Supporting Plank Frame Construction of the Type Where Every Rafter Forms a Truss. Rafters Spased on 24-Inch Centers.



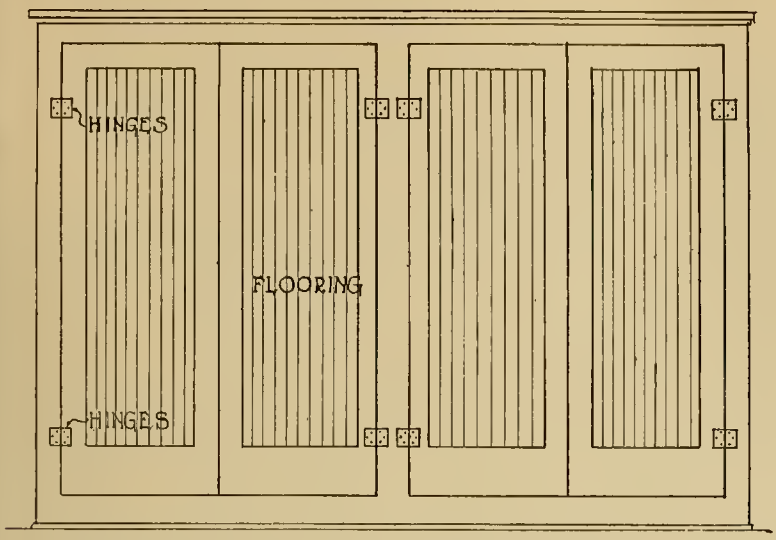
Working Details of Construction and Special Equipment for Horse Barn.



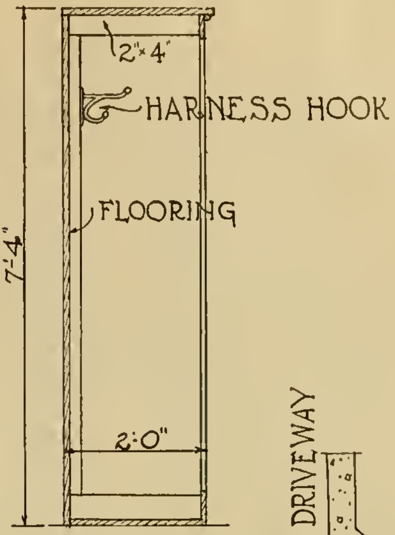
Details of Construction Drawn to Exact Scale of Gambrel Roof Barn with Dormers.



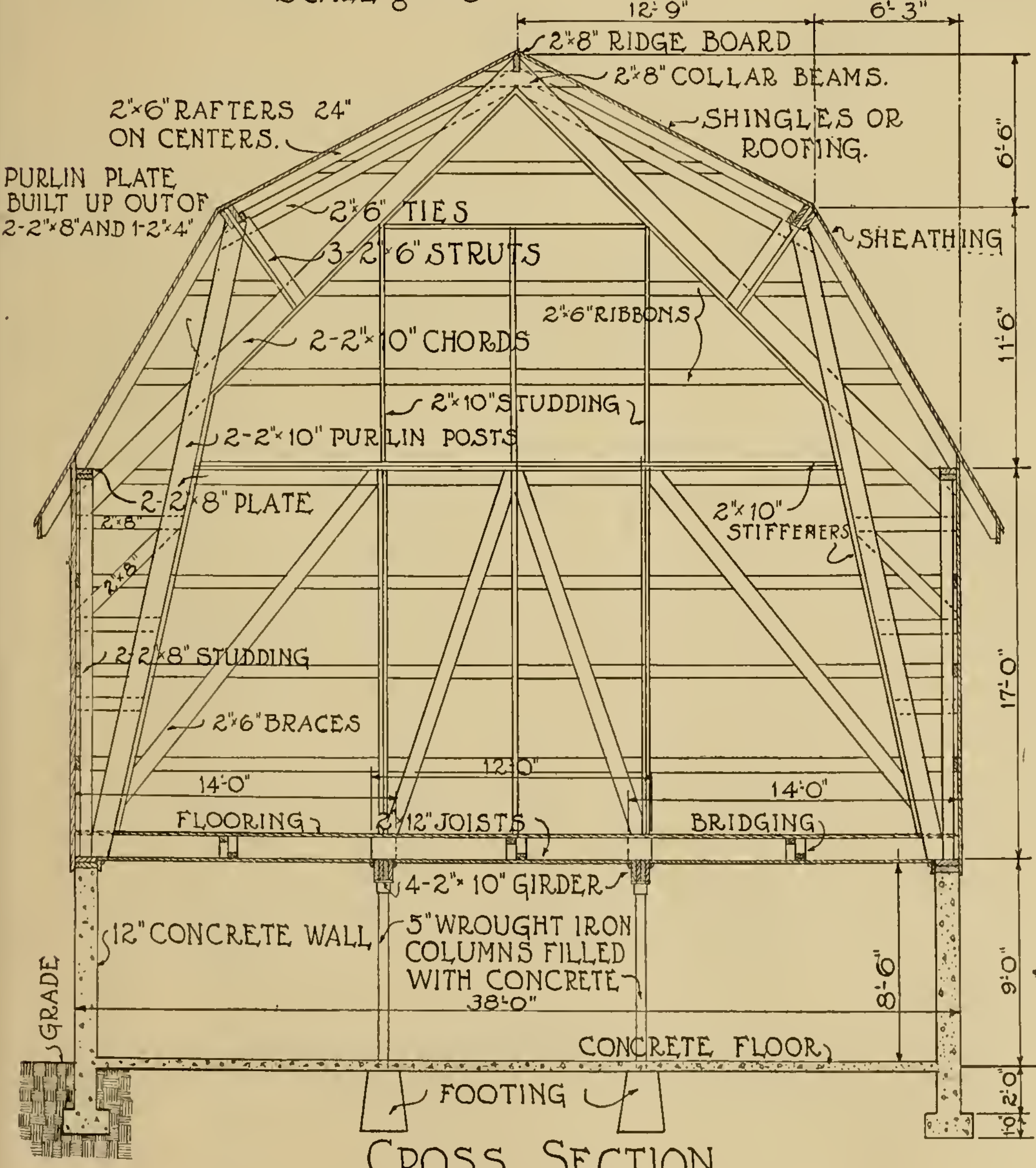
Construction Details of Small Farm Barn with Self-Supporting Gambrel Roof.



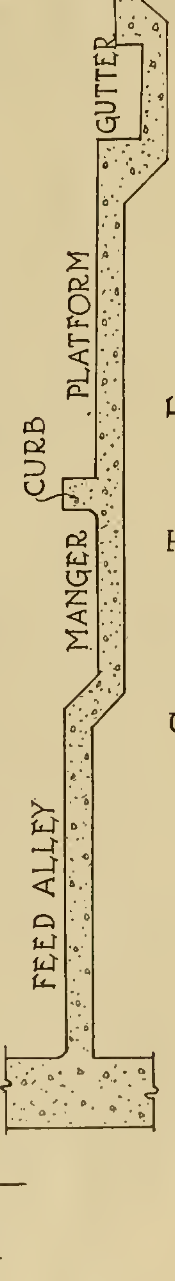
ELEVATION OF HARNESS CABINET
SCALE 3/8" = 1'-0"



SECTION

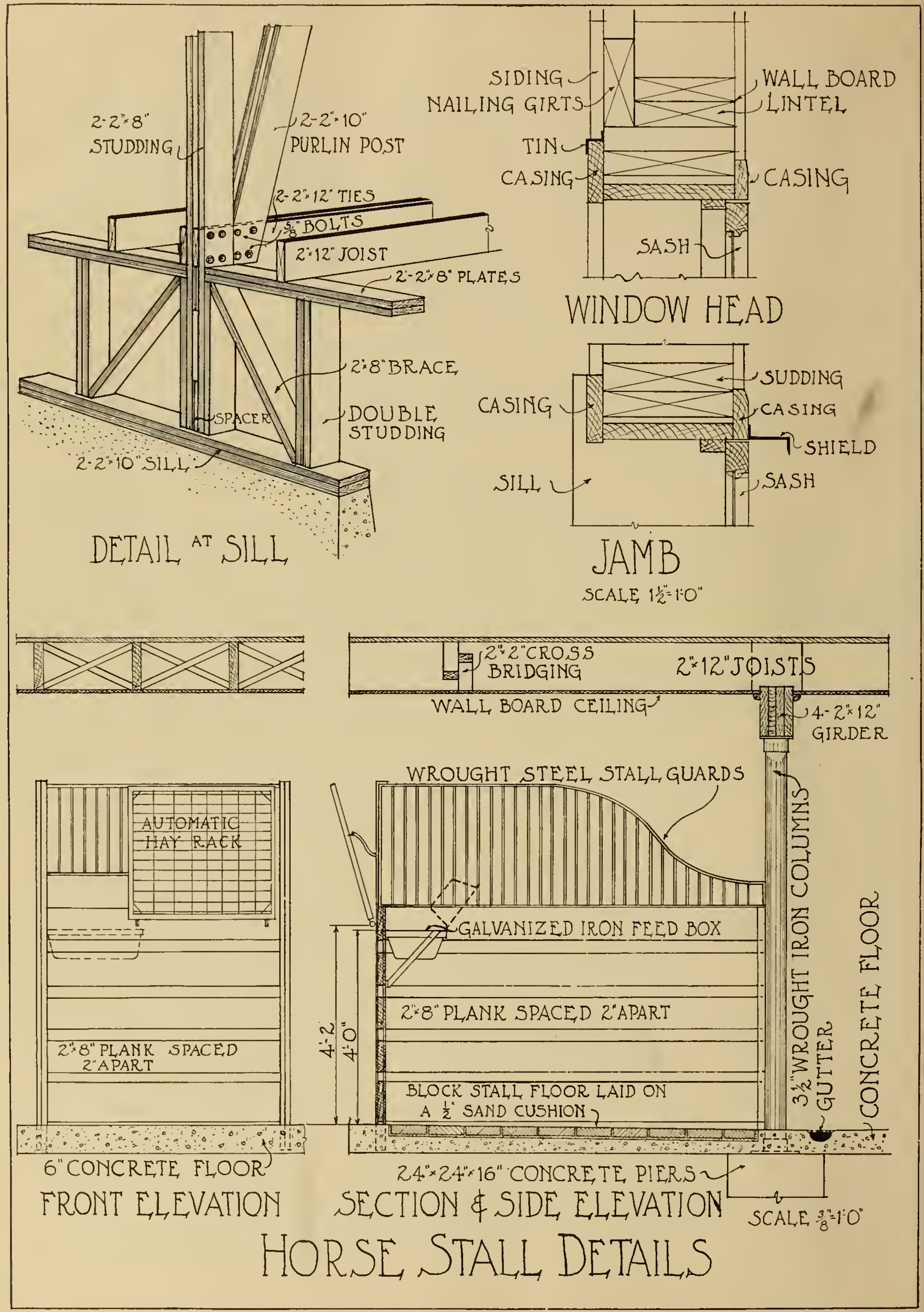


CROSS SECTION
SCALE 1/4" = 1'-0"

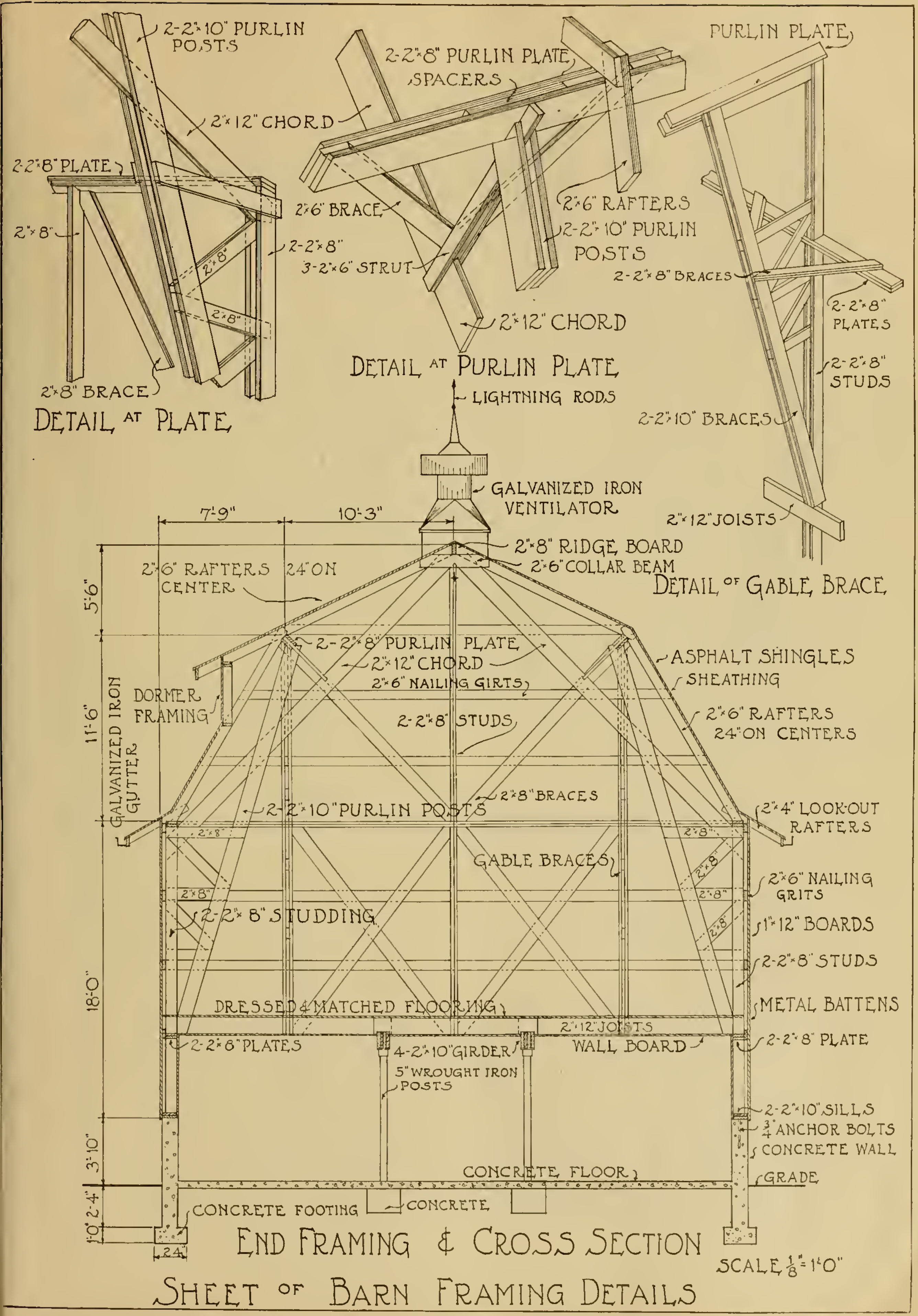


SECTION THRU FLOOR
SCALE 3/4" = 1'-0"

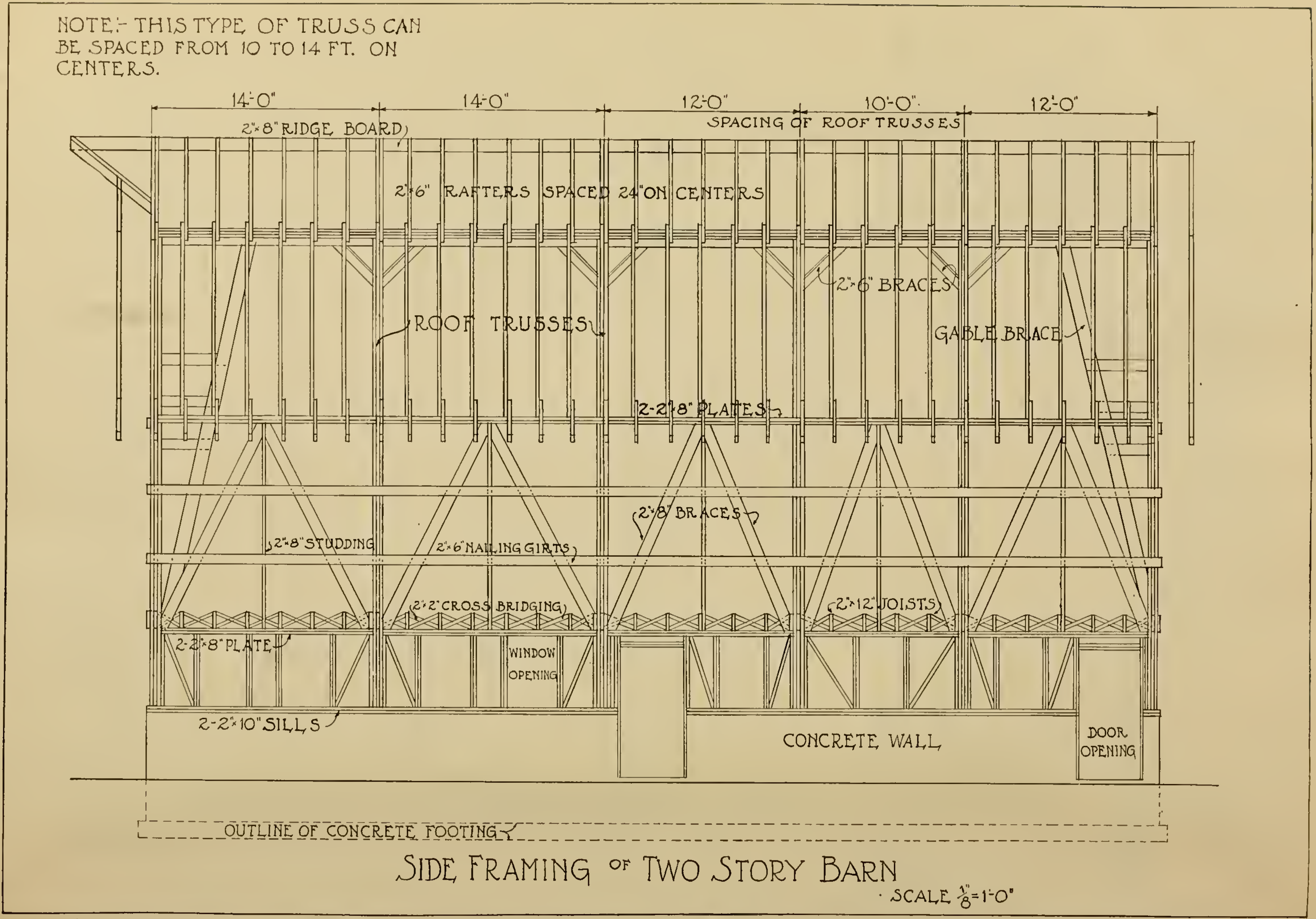
Cross-Section Thru Self-Supporting Gambrel Roof of Barn, Showing Also End Framing. Roof Trusses Are Spaced About 12 Feet Apart.



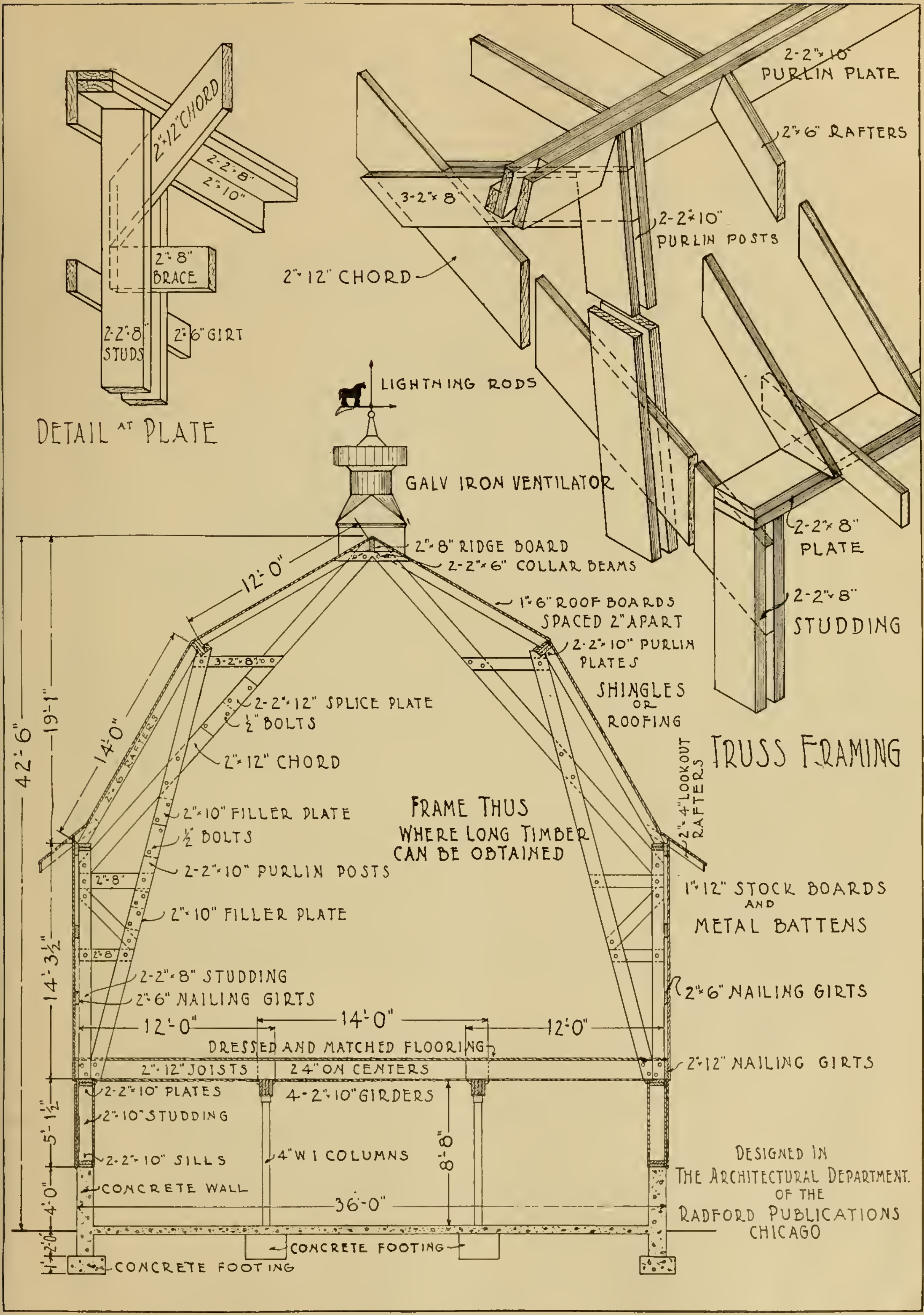
Details of Horse Stable Part of Combination Barn. Note Improved Stall Flooring of Creosoted Blocks Laid on the Concrete. Plank Frame Construction at Sill Also Clearly Shown.



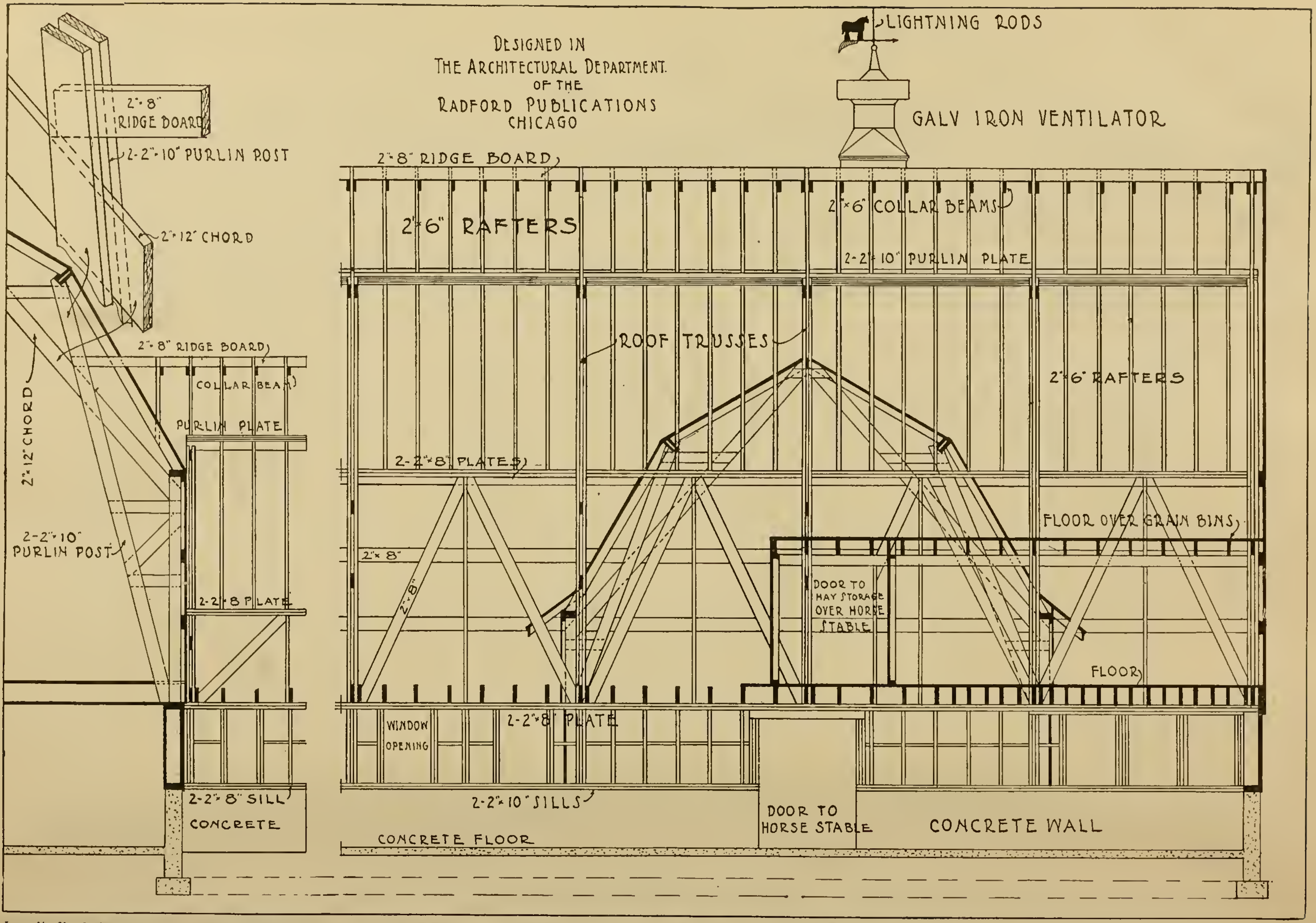
Detail of Gambrel Roof Horse Barn, Showing End Framing, and Also Intermediate Plank Frame Truss. Sketches Above Show Clearly the Principal Connection in This Type of Truss.



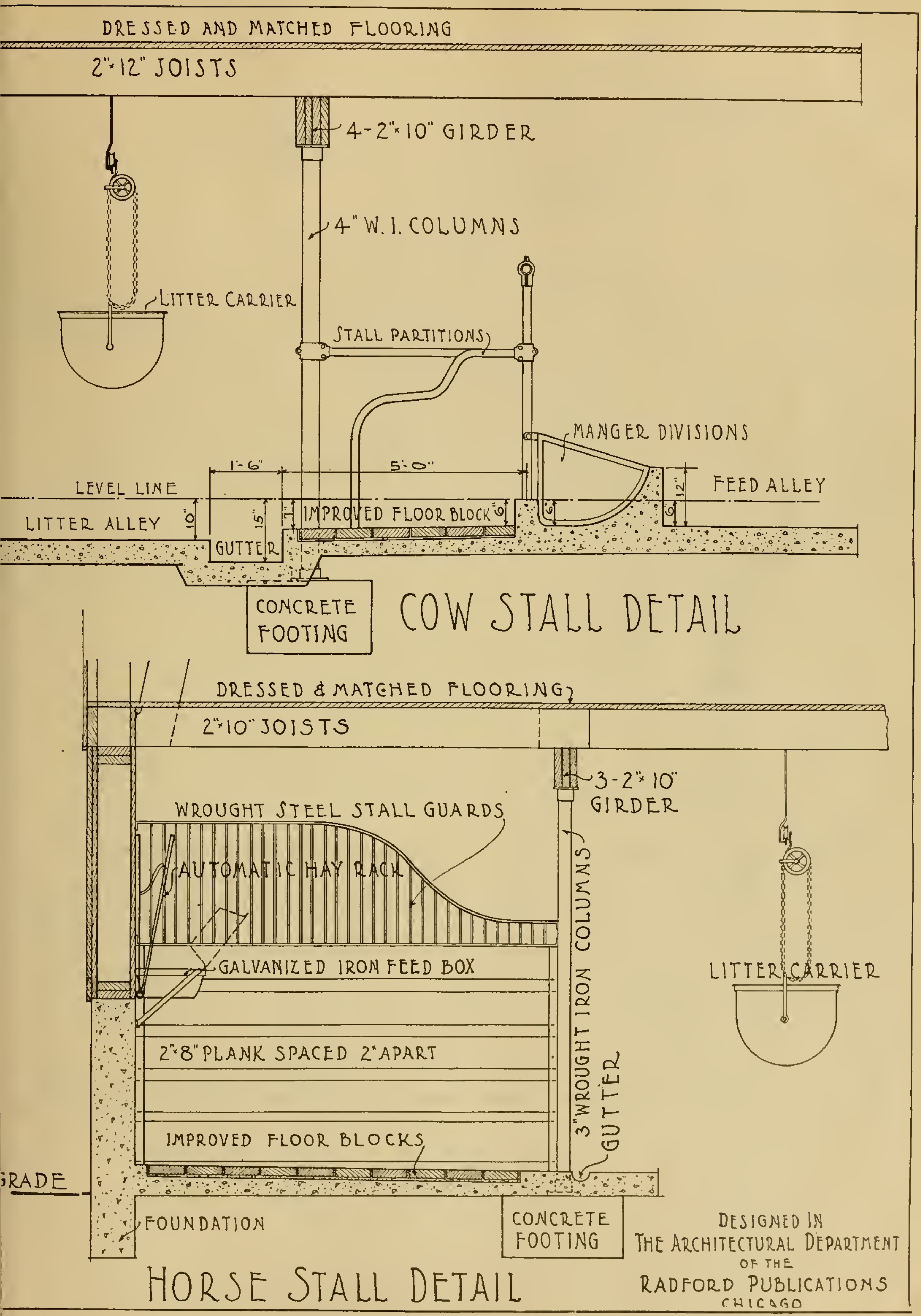
Side Framing Detail of Gambrel Roof Horse and Storage Barn. Note That Plank Frame Trusses Are Set from 10 to 14 Feet Apart to Work Out Right with the Floor Plan.



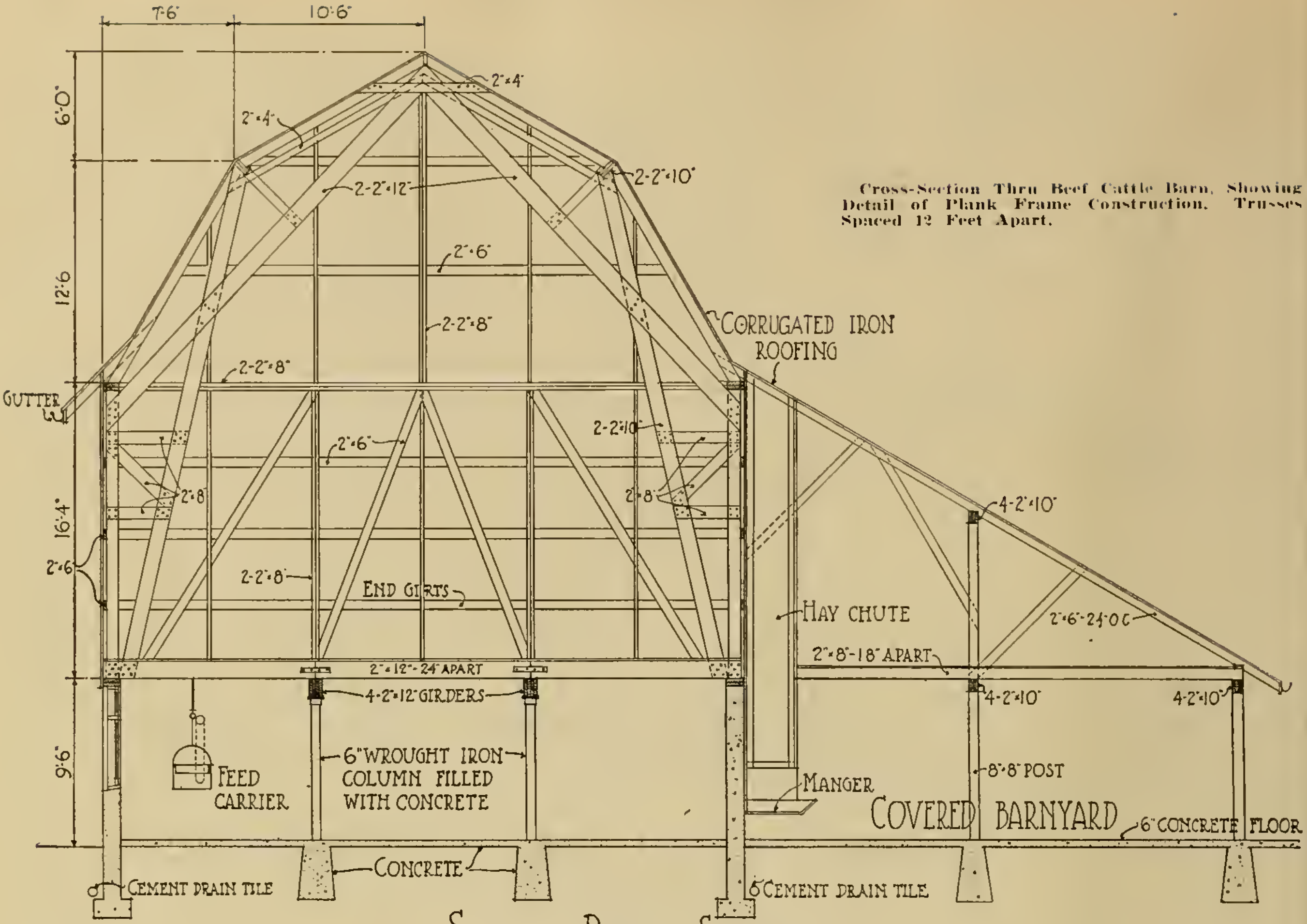
Cross-Section Thru Gambrel Roof Barn. This Is an Example of Radford's Standardized Plank Frame Construction, Making Use of 2-Inch Plank Carried Regularly in Stock at All Lumber Yards.



Longitudinal Section Thru Big Gambrel Roof Barn. This View Shows Intersection of Horse Stable Wing with Main Section. Notice How Passageway in Hay Mow Is Formed Across the Center of the Barn to Make All Parts of the Mow Accessible, Even When the Center Is Filled.

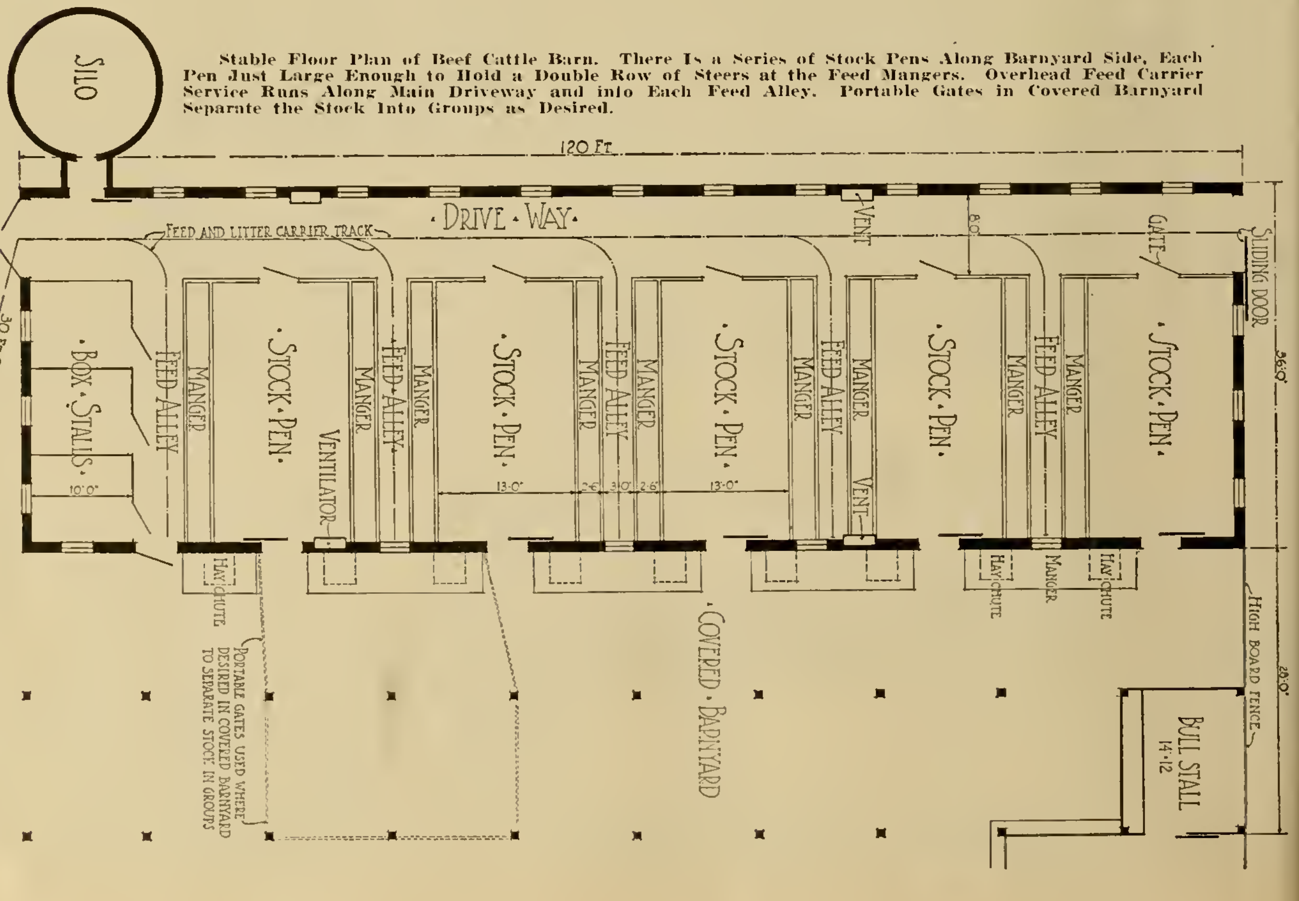


Details of Sanitary Cow Stalls and Horse Stalls in Big Barn.

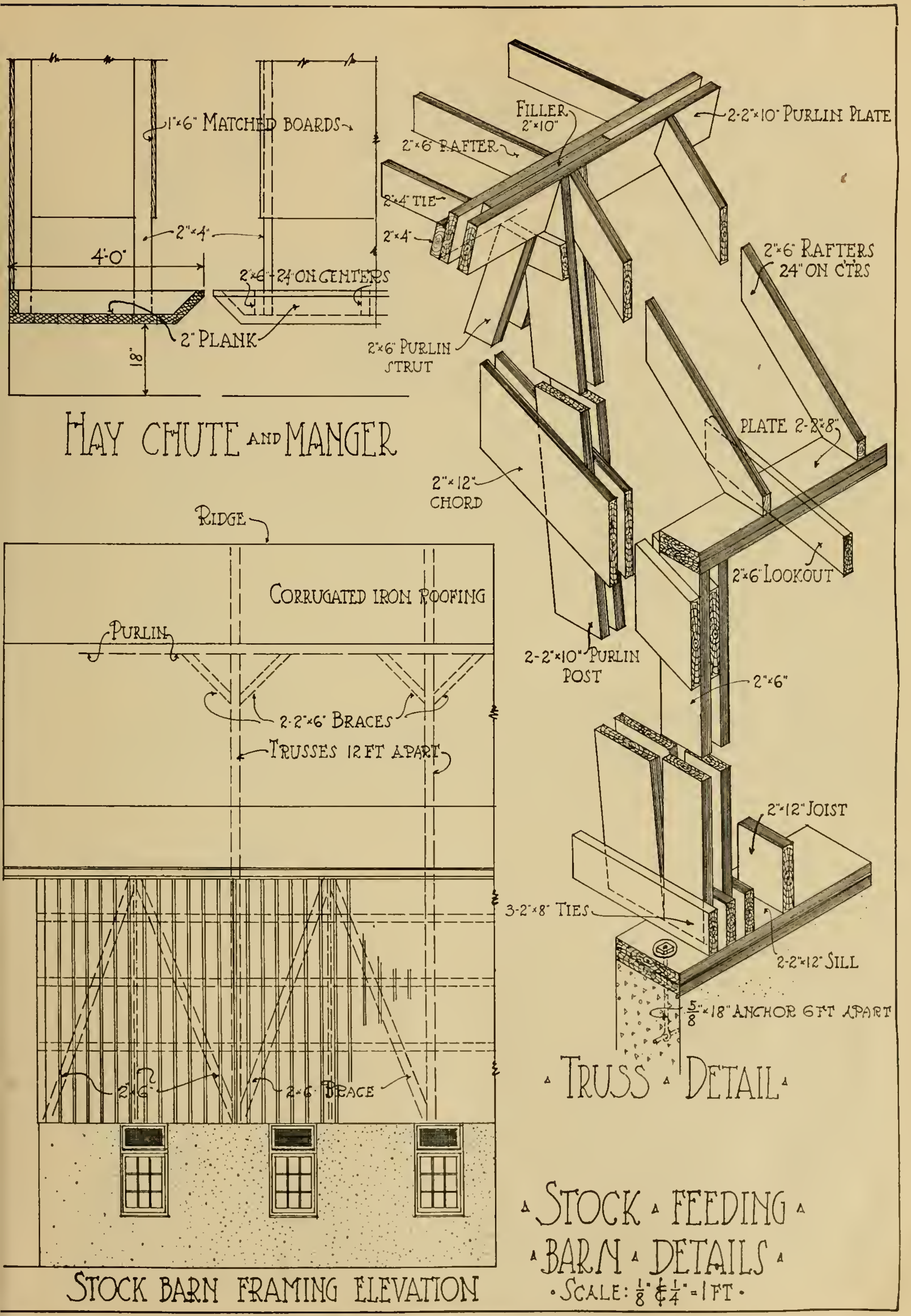


Cross-Section Thru Beef Cattle Barn, Showing Detail of Plank Frame Construction. Trusses Spaced 12 Feet Apart.

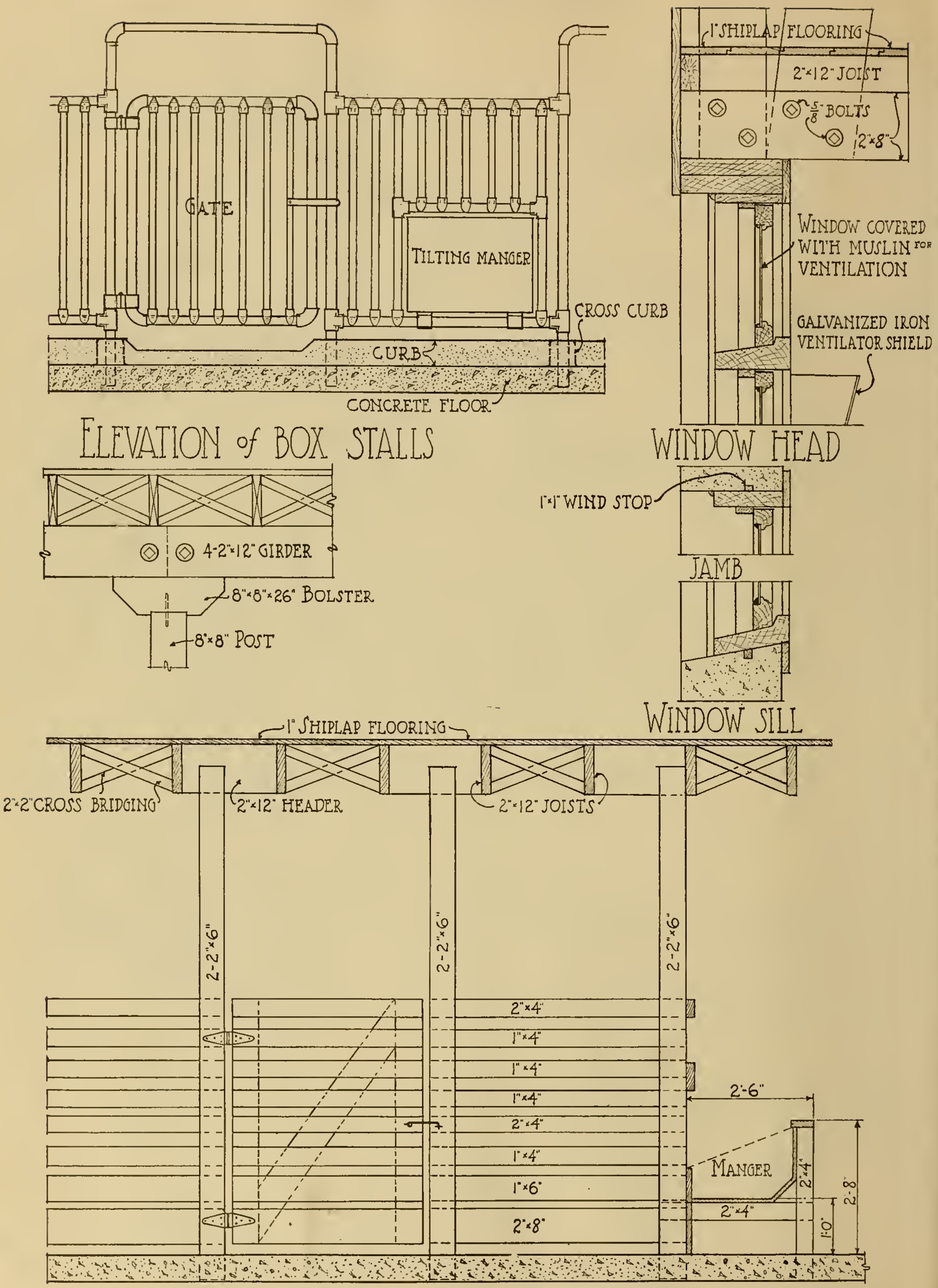
STOCK · BARN · SECTION



Stable Floor Plan of Beef Cattle Barn. There Is a Series of Stock Pens Along Barnyard Side, Each Pen Just Large Enough to Hold a Double Row of Steers at the Feed Mangers. Overhead Feed Carrier Service Runs Along Main Driveway and into Each Feed Alley. Portable Gates in Covered Barnyard Separate the Stock Into Groups as Desired.

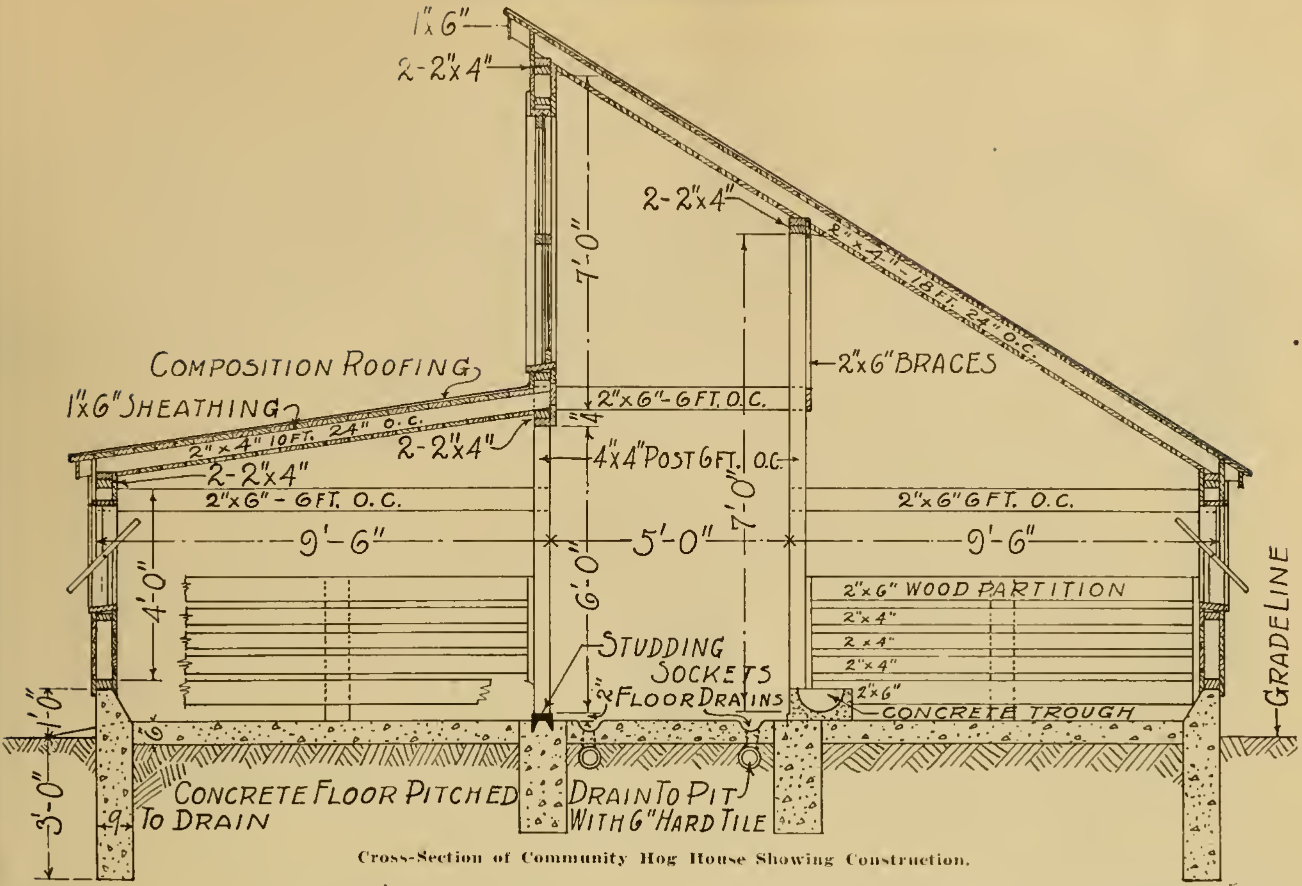


Details of Plank Frame Construction for Beef Cattle Barn. These Trusses Are Built Up of 2-Inch Planks and Are Spaced 12 Feet Apart.

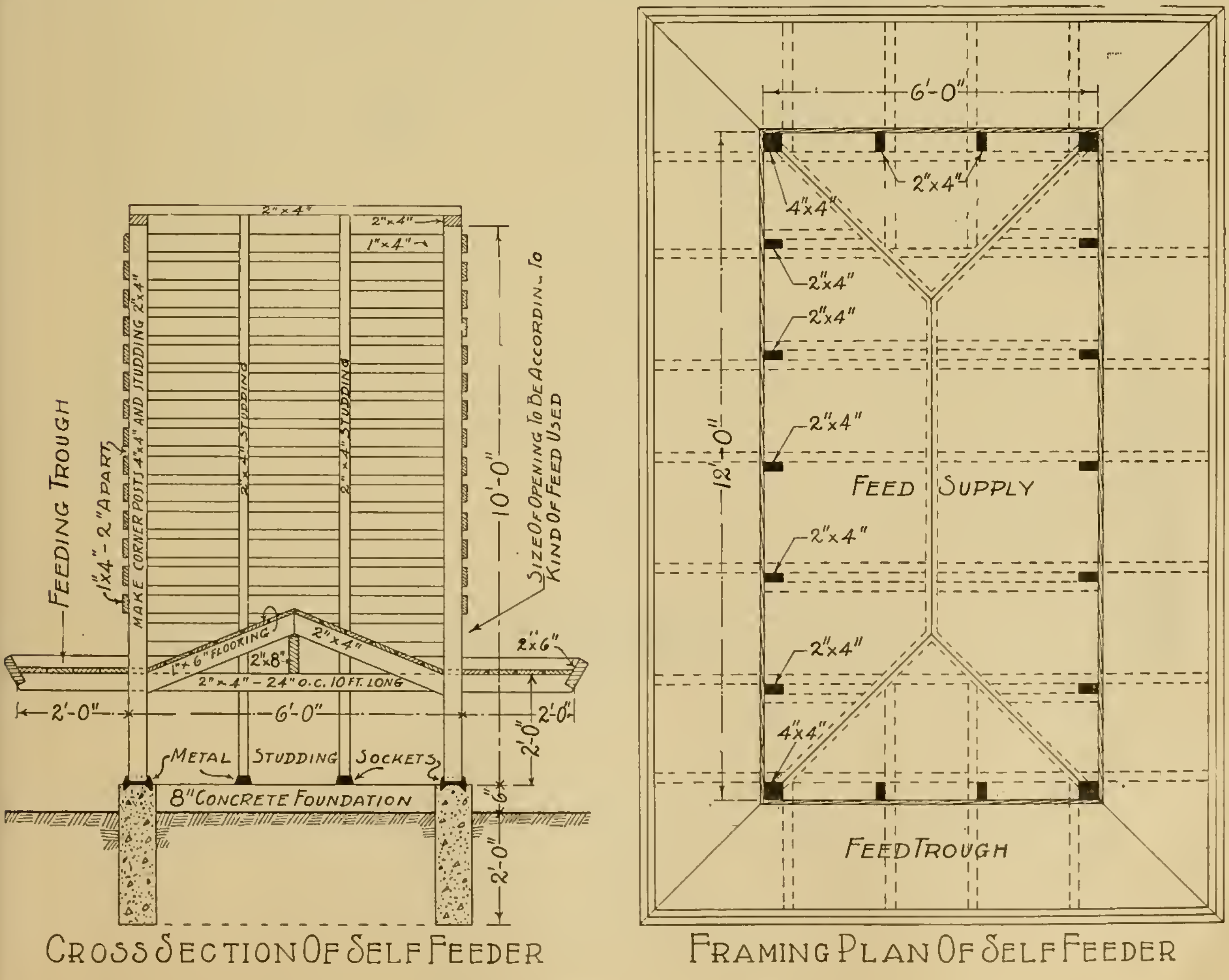


ELEVATION of STOCK PEN AND DETAILS IN STOCK BARN.
• SCALES 3/8" & 3/4" = 1'-0" •

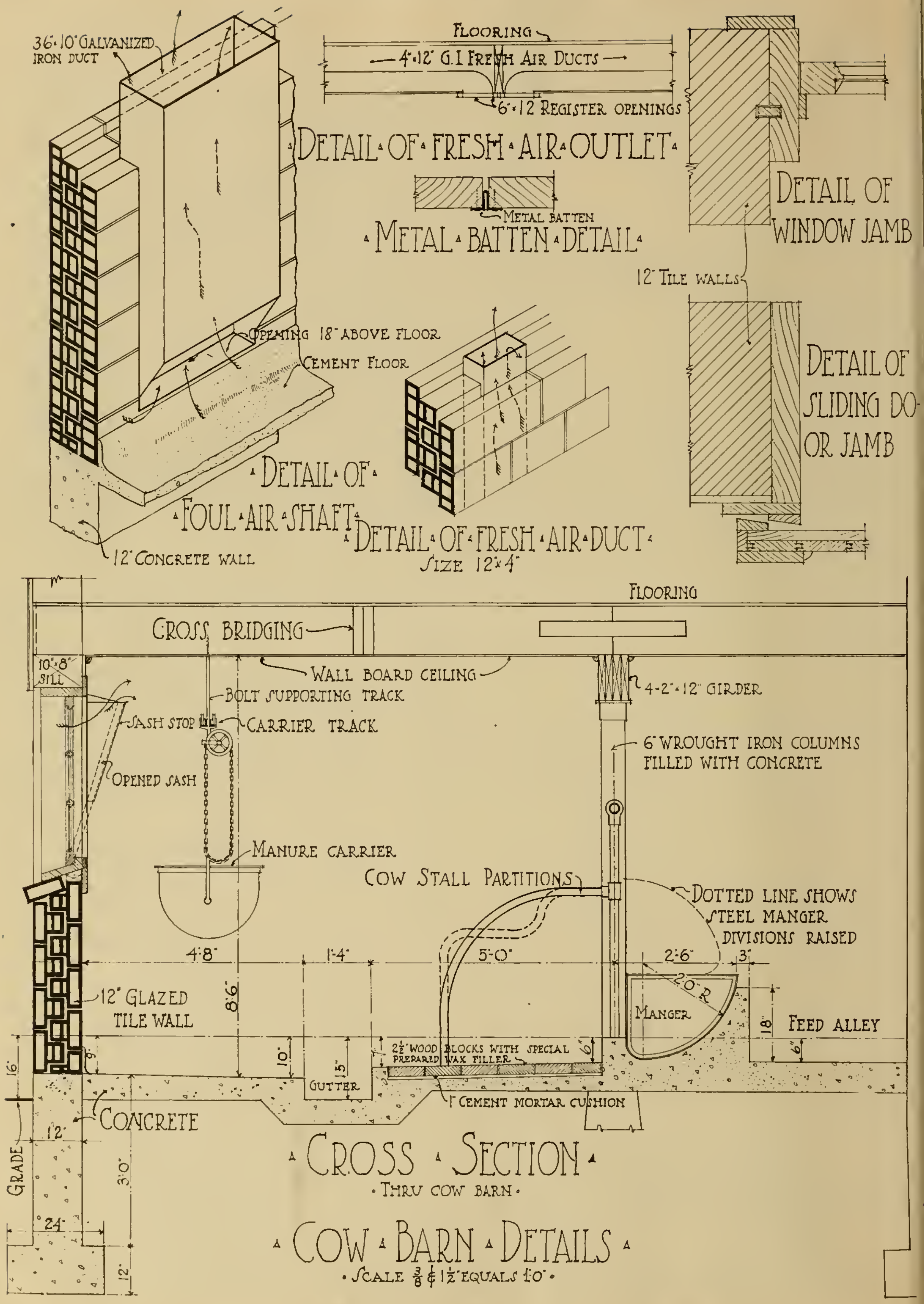
Details of Stock Pens, Etc., for Beef Cattle Barn.



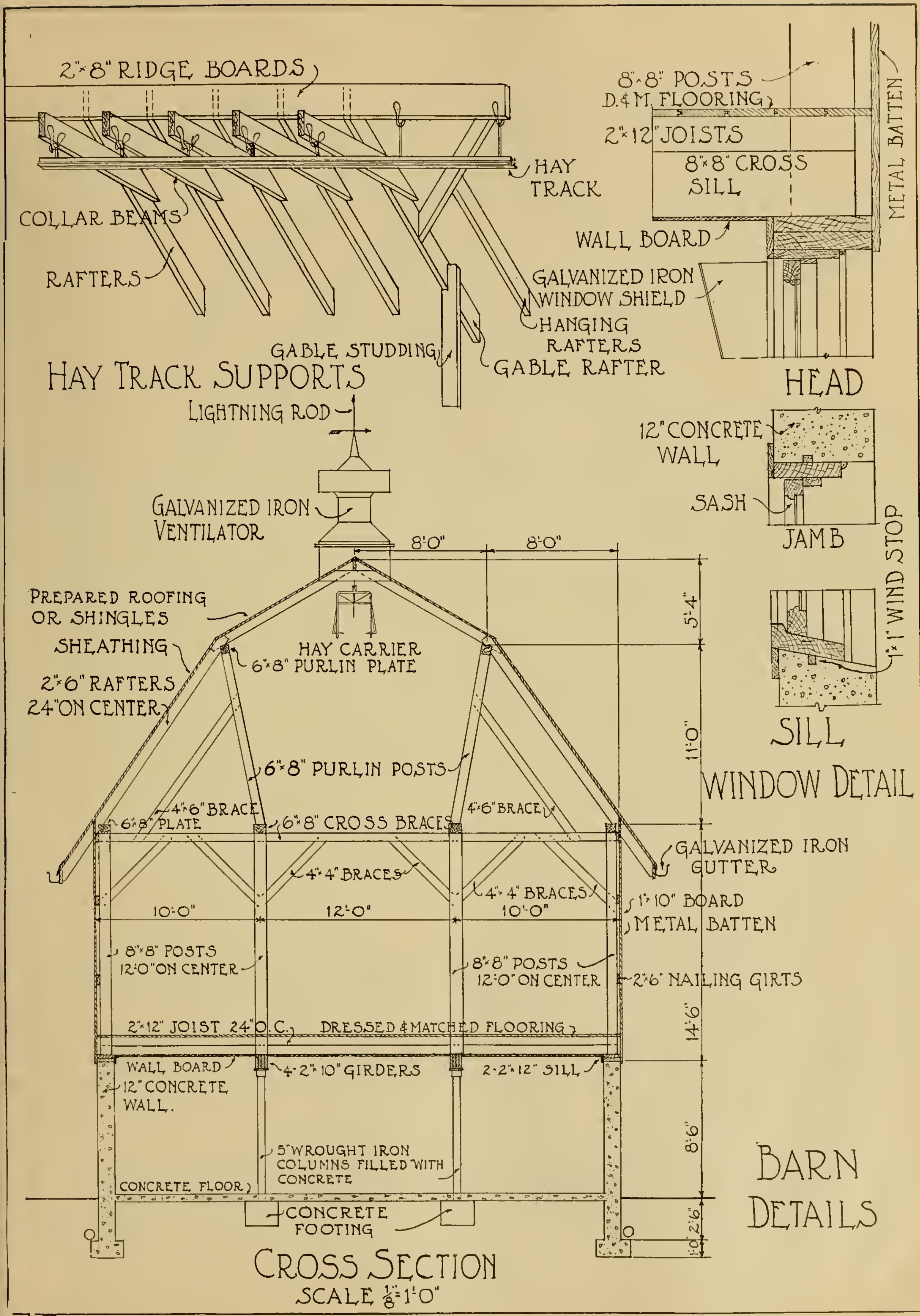
Cross-Section of Community Hog House Showing Construction.



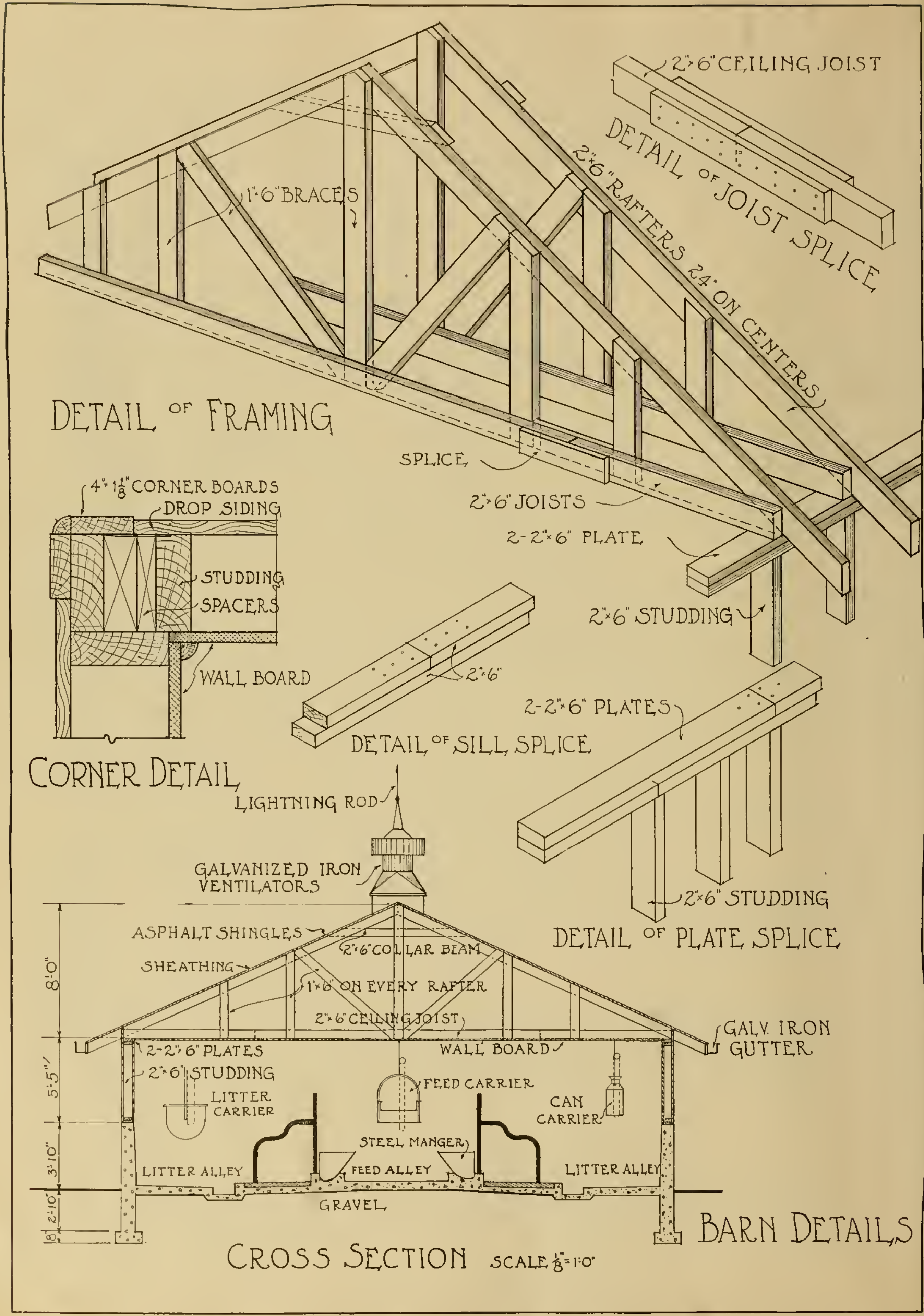
Details of Large Self-Feeder for Cattle.



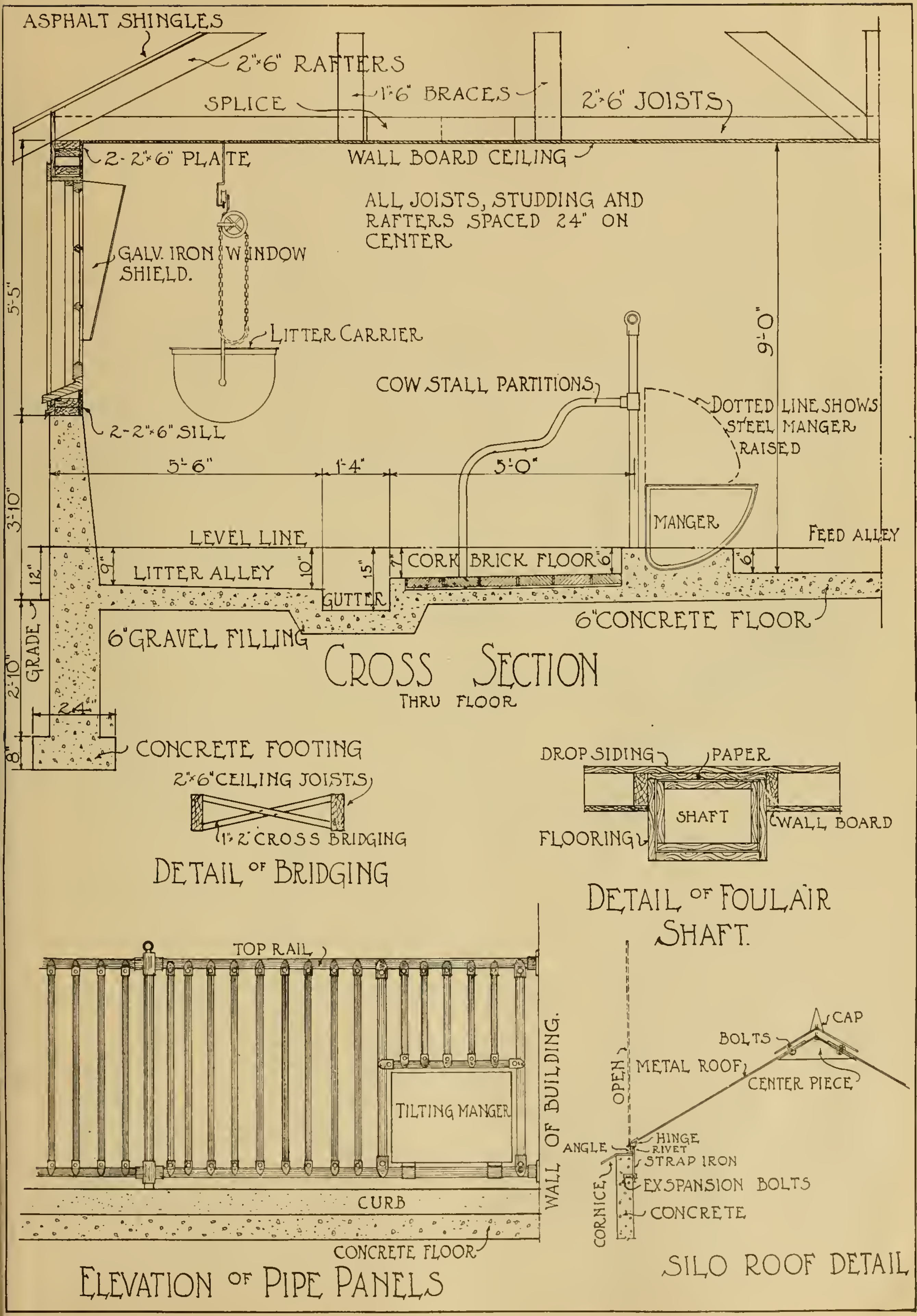
Working Details of Dairy Stable Basement for Remodeled Cow Barn.



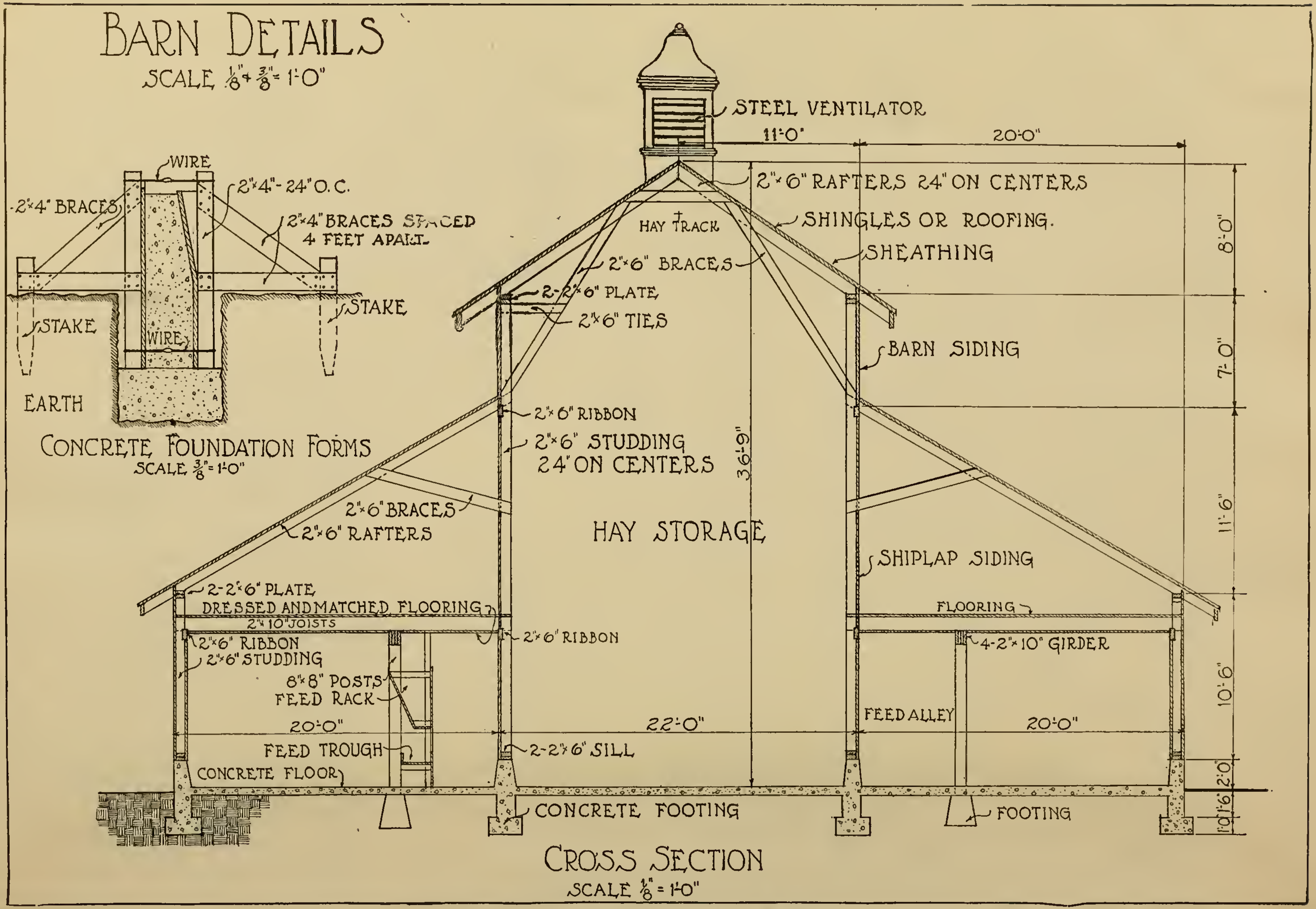
Details of Heavy Timber Framing for Stock Barn.



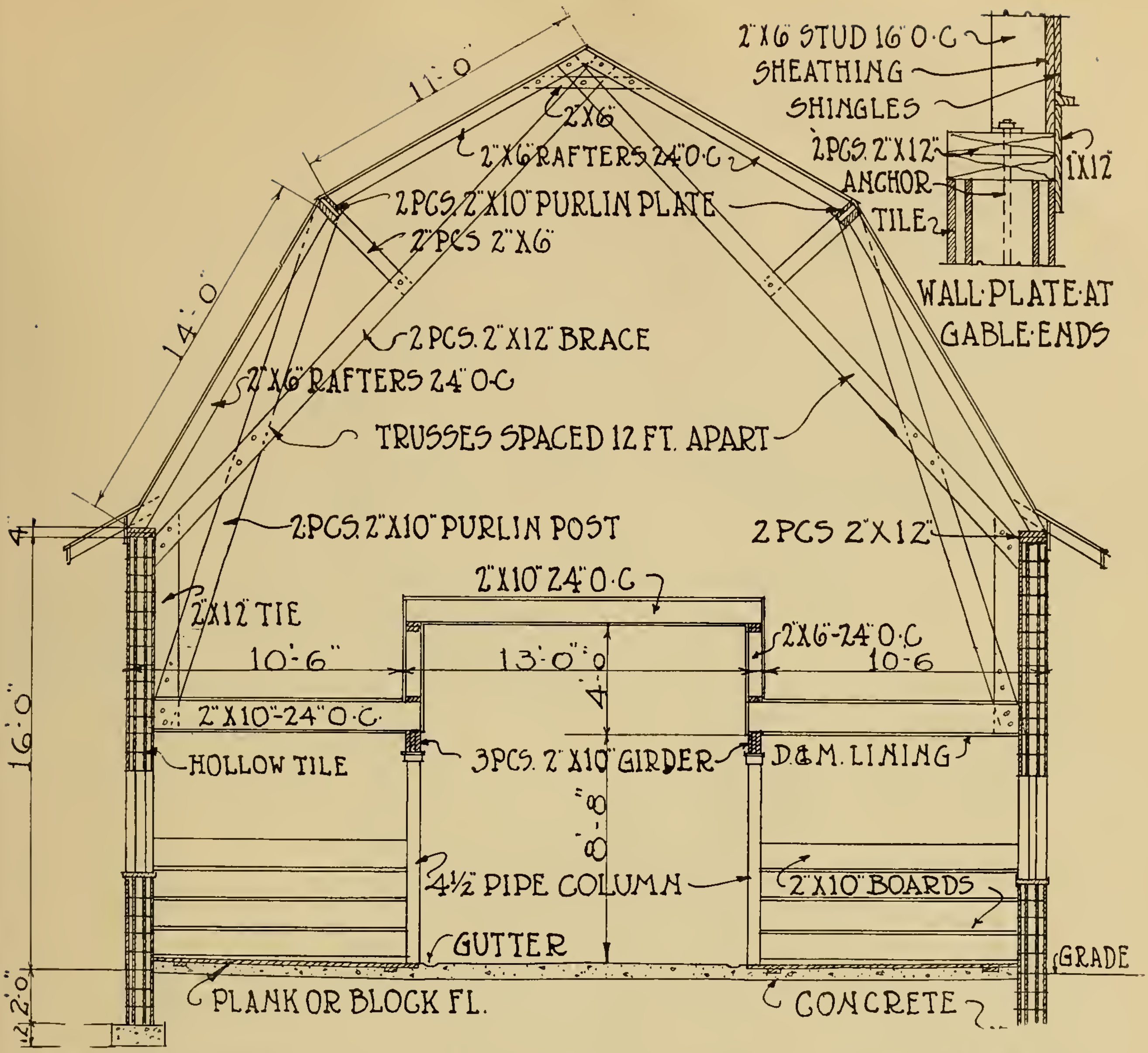
Details of Gable Roof Dairy Stable. Span of Roof 32 Feet. Concrete Foundation Walls Extend Up 3 Feet 10 Inches. Above This the Inside Is Lined with Wall Board, for Both Side Walls and Ceiling.



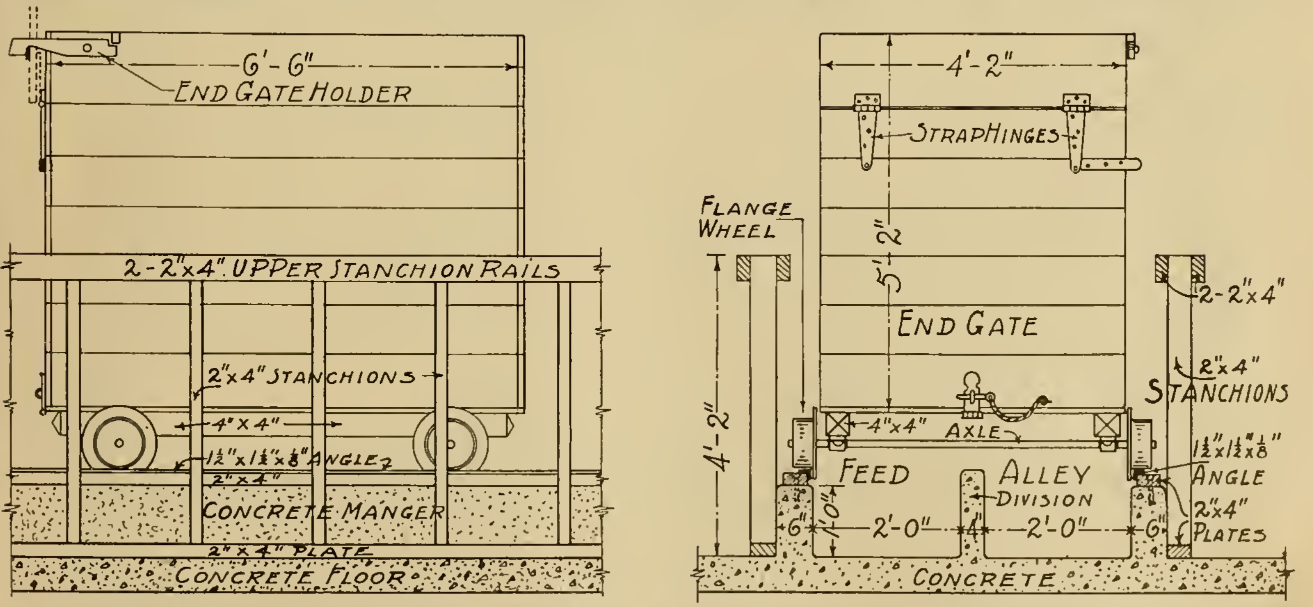
Details of Dairy Stable. Note How Cow Stalls Are Floored with Cork Brick. Cow Stall Partitions and Pens of Metal Piping Also Specified. Note Improved Silo Roof Details, Which Shows How to Put on an Extension Metal Roof.



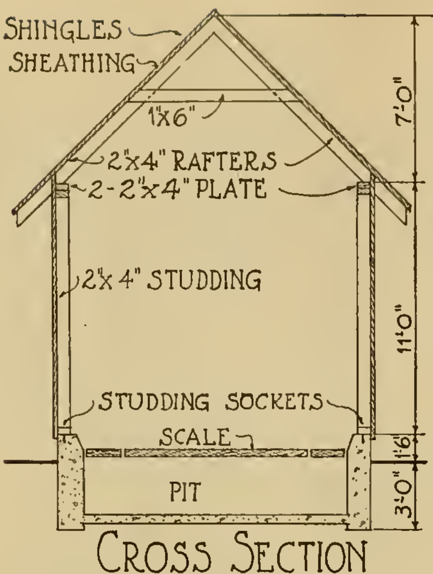
Details of Construction of Monitor Roof Stock Barn.



Section Thru Hollow Tile Horse and Cow Barn, Showing Framing for Self-Supporting Roof. The Tile Walls Extend Clear Up to the Eaves. The Purlin Braces Come Down to the Floor Joists and Are Tied to the Ends of the Truss Chord Above at the Plate Line by Means of Two Pieces of 2 by 12 for Each Truss. This Takes the Outward Thrust Away from the Top of the Tile Wall.

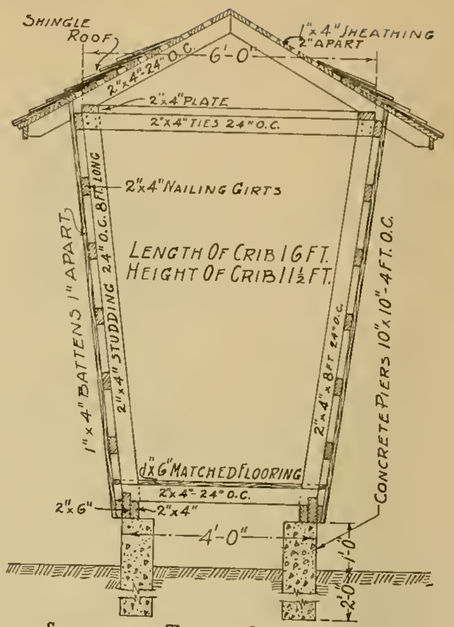


Working Drawings of Handy Cart for Feeding Silage. The Cart Runs on a Light Angle-Iron Track the Length of the Feed Alley. It Is Filled Directly from the Silo, and When the End Gate Is Opened the Silage Is Raked Out and Distributed with a Minimum of Time and Labor.



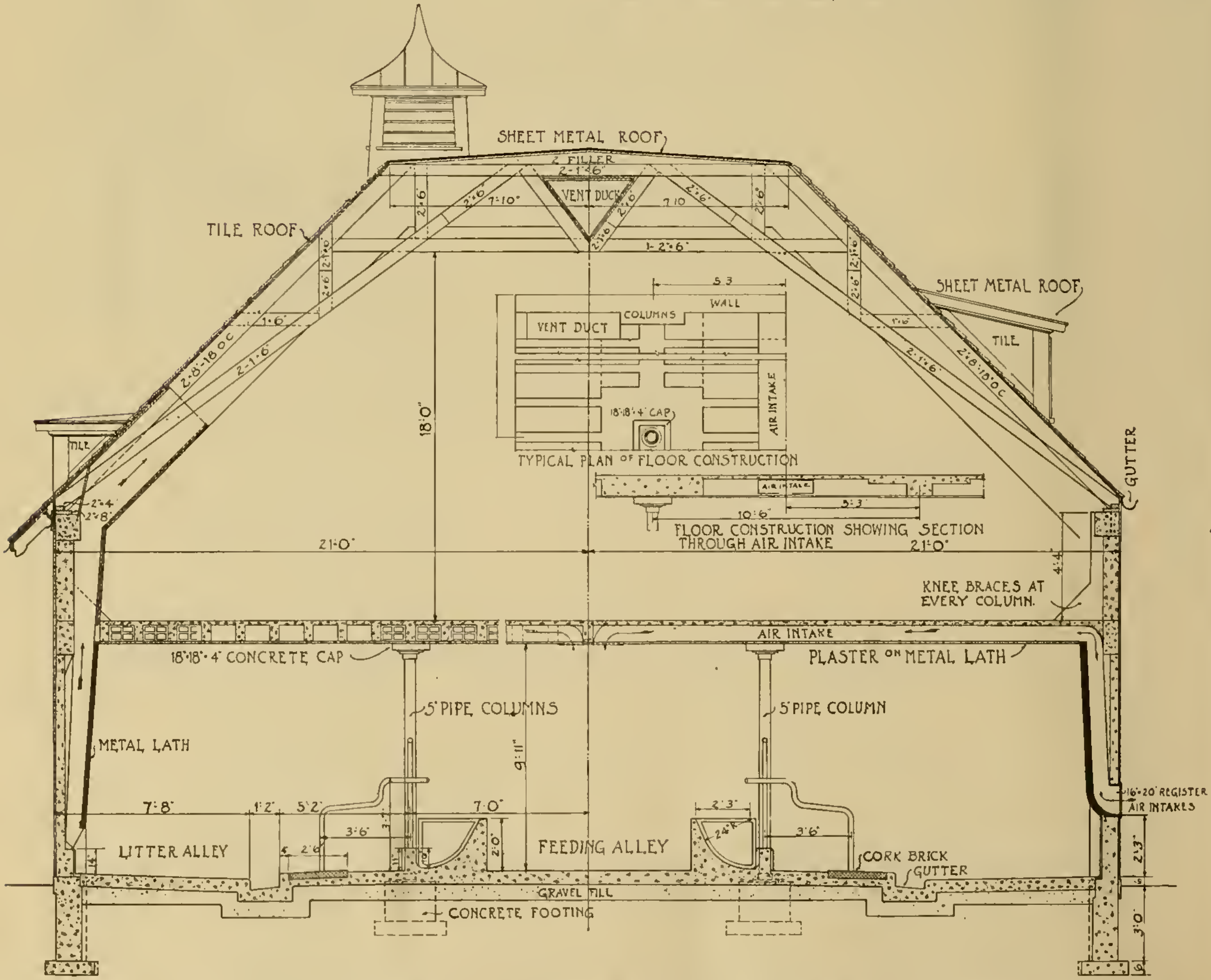
CROSS SECTION

Dimensioned Construction View of Scale House.

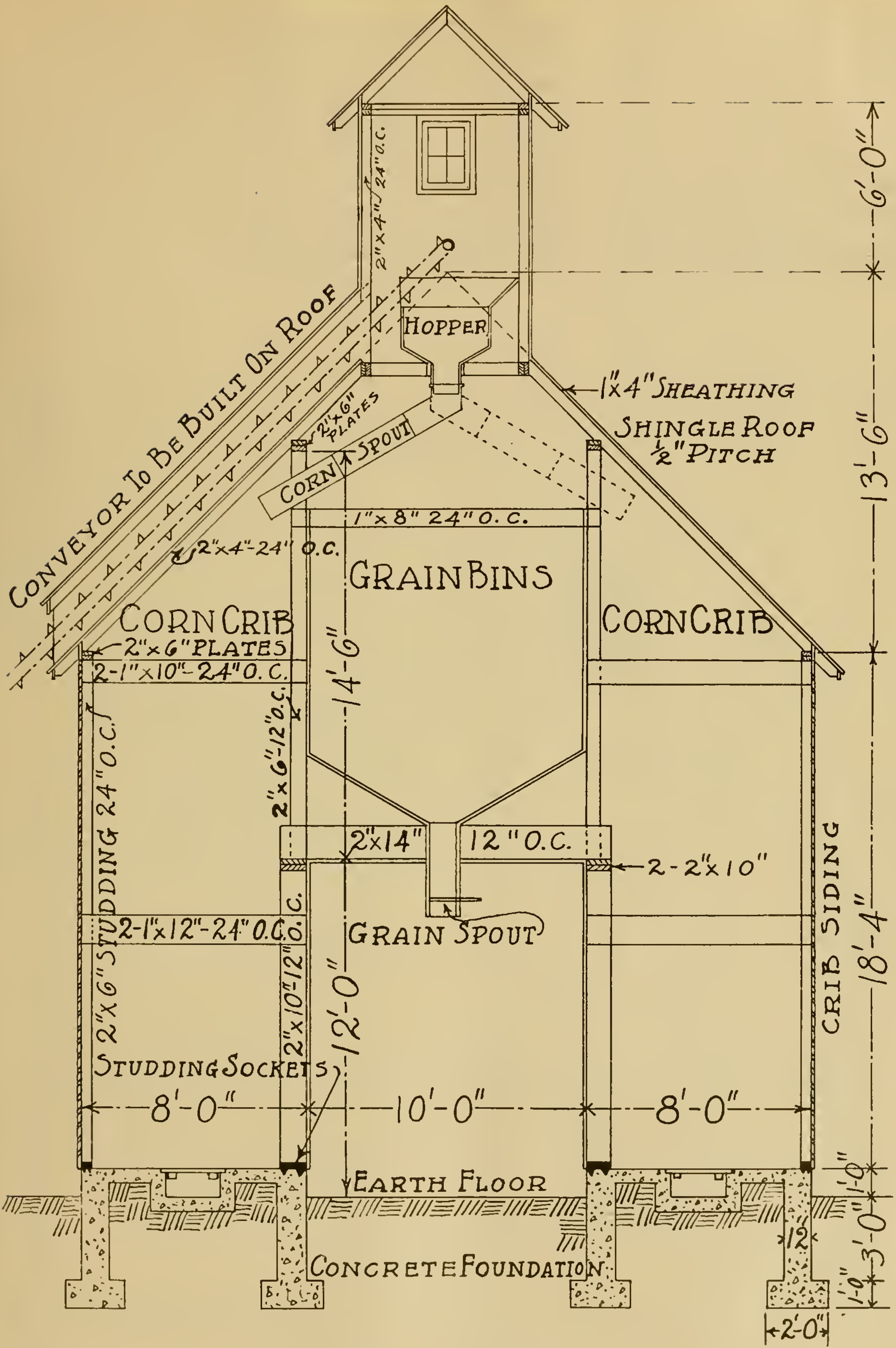


SECTION THRU CORN CRIB

Small Single Corn Crib of the Good Old-Fashioned Type Resting on Concrete Posts 12 Inches Above Ground to Keep Out the Rats and Mice. The Building Is 4 Feet Wide at the Base, Sloping Outward to a 6-Foot Width at the Plates. The Height Is 11½ Feet and the Length 16 Feet; 1 by 4-Inch Battens Placed 1 Inch Apart Form the Sloping Side Walls and Assure Plenty of Ventilation. For Convenience in Filling, There Are Two Small Doors High Up in the Side. A Good, Tight, Well Framed Roof Is Provided, Making This a Very Secure Corn Crib.

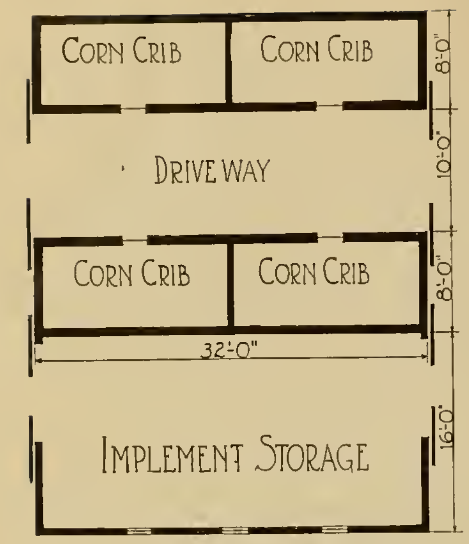


Cross-Section of Fireproof Dairy Stable of Reinforced Concrete, Showing Some of the Construction Features. The Air Intake Is Built Thru the Ceiling Over the Stable, Which Is of Concrete and Tile. The Truss Framing for the Roof Is Unusual.

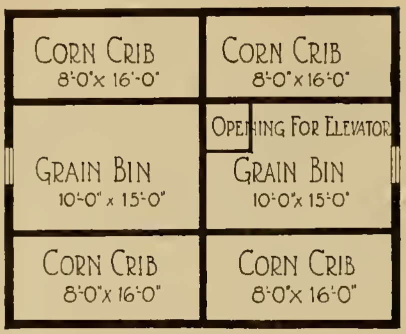


CROSS SECTION OF CORN CRIB

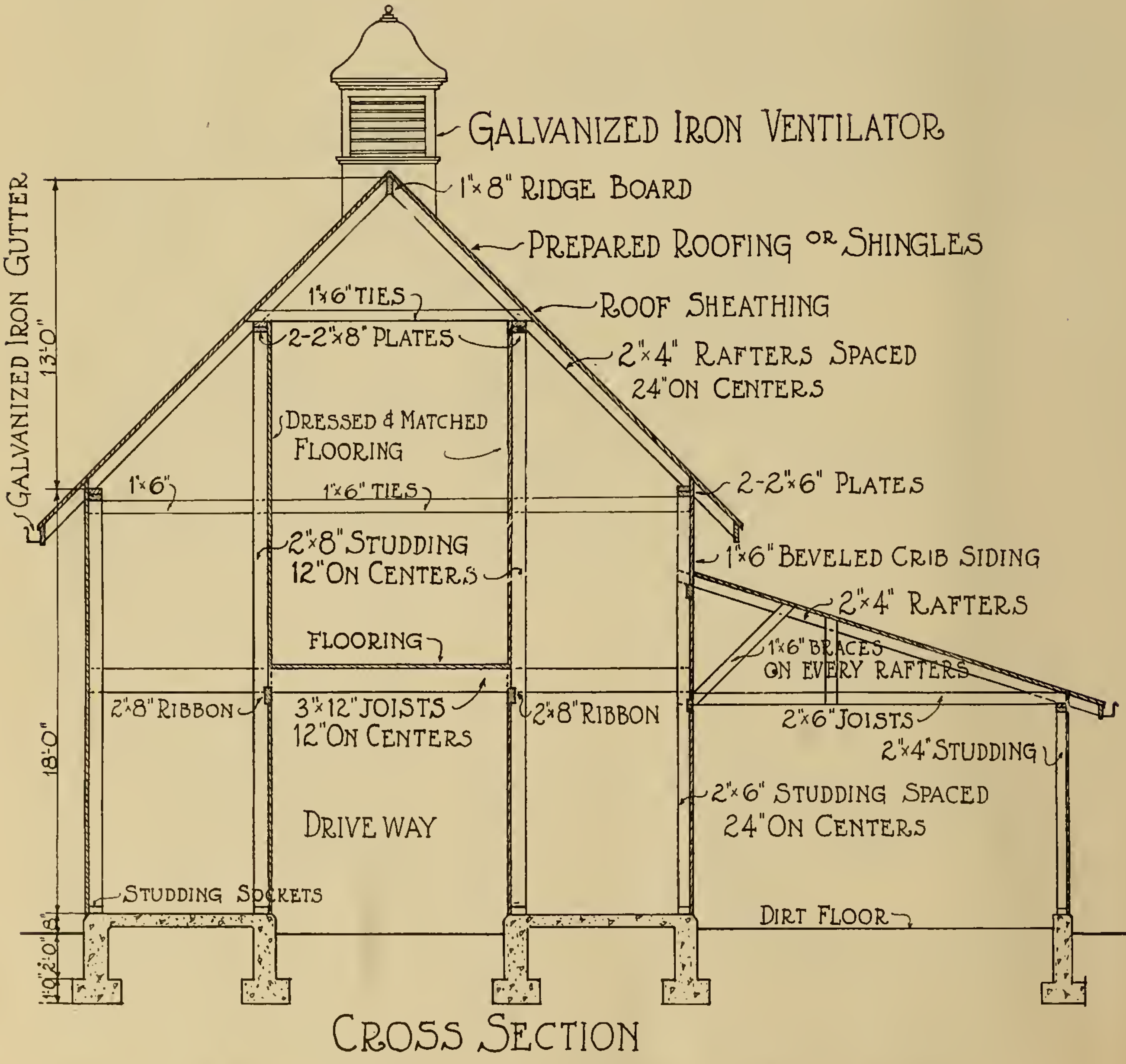
Details of Construction of High Corn Crib and Granary. Note How the Distributing Hopper Is Arranged in the Cupola.



Ground Floor Plan.



Upper Floor Plan.


GALVANIZED IRON VENTILATOR
1"x 8" RIDGE BOARD
PREPARED ROOFING OR SHINGLES
1"x6" TIES
ROOF SHEATHING
2-2"x8" PLATES
2"x4" RAFTERS SPACED 24" ON CENTERS
DRESSED & MATCHED FLOORING
GALVANIZED IRON GUTTER
13'-0"
1"x6"
1"x6" TIES
2-2"x6" PLATES
2"x8" STUDDING 12" ON CENTERS
1"x6" BEVELED CRIB SIDING
2"x4" RAFTERS
FLOORING
1"x6" BRACES ON EVERY RAFTERS
2"x8" RIBBON
3"x12" JOISTS 12" ON CENTERS
2"x8" RIBBON
2"x6" JOISTS
2"x4" STUDDING
18'-0"
2"x6" STUDDING SPACED 24" ON CENTERS
DRIVE WAY
STUDDING SOCKETS
DIRT FLOOR
8"
2'-0"
1'-0"
CROSS SECTION

Cross-Section Thru Combined Corn Crib, Grain House and Implement Storage Shed.

Roof Truss for 36-Foot Barn

Question—Would plank frame construction be heavy enough for a barn 36 feet wide, or would it be advisable to use another form of truss? What size plank should be used in a barn 36 feet wide, using 18-foot studding, 2 by 6's? There will be 2 by 6 rafters, two 2 by 6's for plates, 4 by 6's for sills, 2 by 10's for joists, and two 2 by 12's for girders, with 4 by 6 supports placed 9 feet apart. The joists would be 16 feet long between wall and girder.

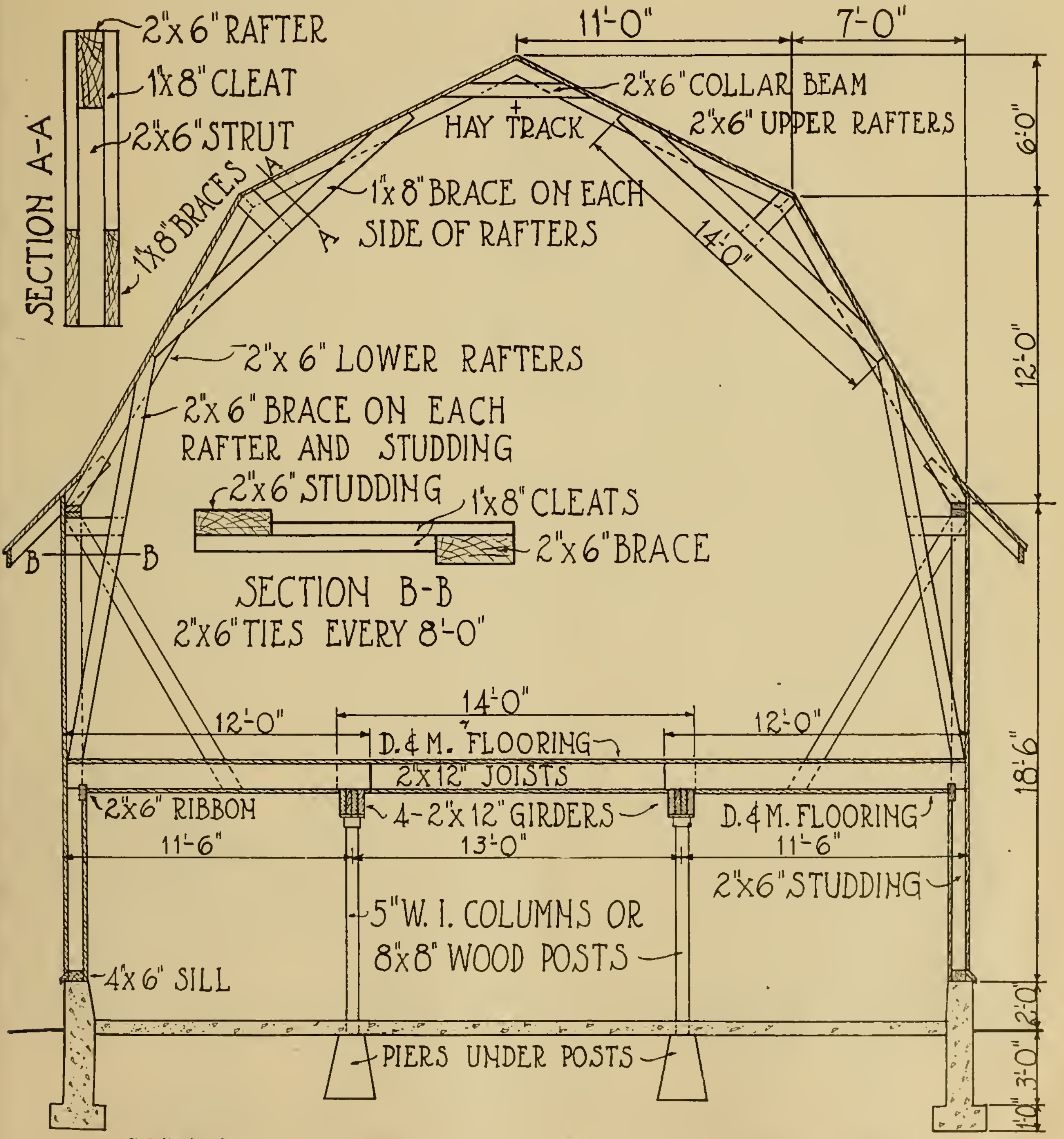
Would you advise tying with a 2 by 6 at a point just below the plate to the floor joists, say at an angle of 45 deg.? The braces on the rafters are to be 1 by 8's.

Answer—If you will cover the joints of the intersecting rafters with 1 by 8-inch cleats on each side, it will strengthen this point very much (see detail at section A-A). The 1 by 8-inch braces on each side of the rafters are heavy enough for a barn of ordinary construction, if it is not exposed too much to high wind.

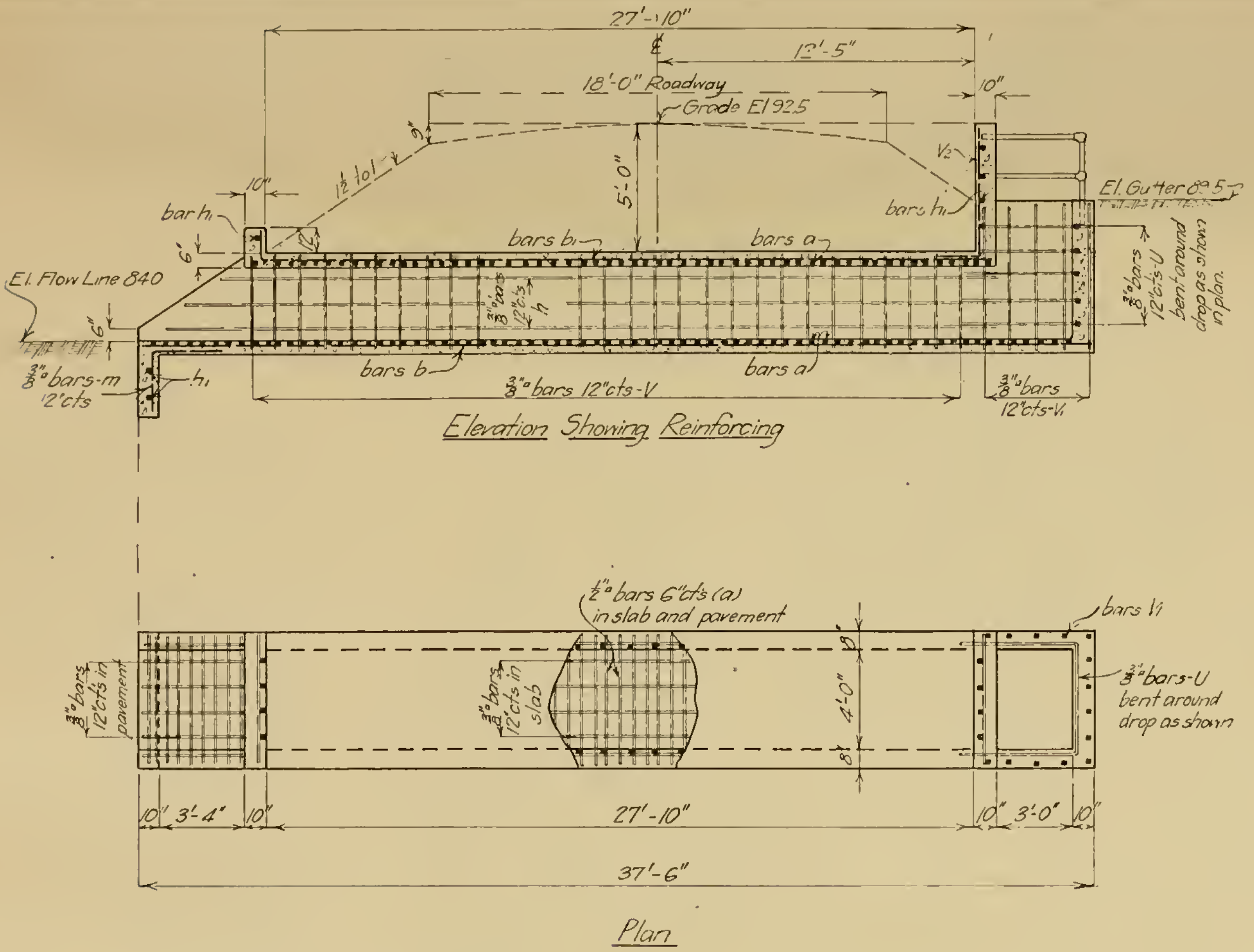
For a barn with 18-foot studding use 2 by 6-inch timbers instead of 1 by 8-inch for the lower brace.

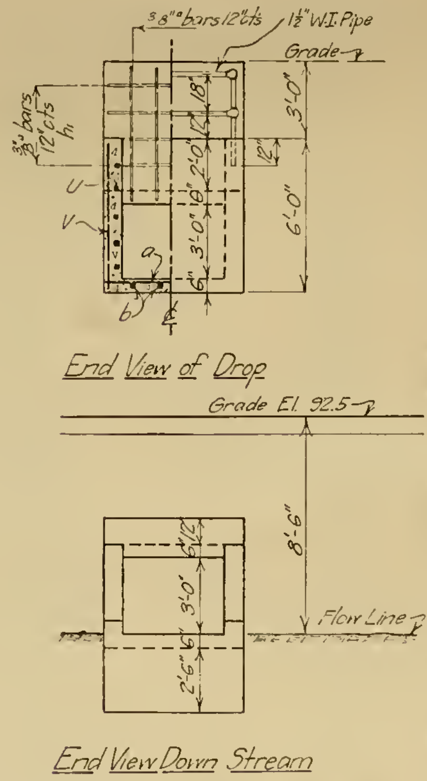
If the barn is exposed to high winds, we would advise tying with a 2 by 6-inch at the point just below the floor joists, spaced 8 feet on centers.

In regard to the floor joists, 2 by 10-inch are not heavy enough for a span of 16 feet with the amount of hay storage that you have to carry. We would recommend using 2 by 12-inch joists and spacing the posts 11 feet 6 inches from the outside wall. This would make the span more evenly spaced.



Detail Showing Recommended Sizes for Various Members in Plank Frame Barn That Is 36 Feet Wide.





To be constructed in accordance with the State of Illinois State Highway Dept. Contract Form and General Specifications for Bridge Work, Edition of July, 1915.

All exposed edges to be beveled with ¾" triangular molding.

Class "A" concrete to be used throughout Proportions 1-2½-4.

All steel reinforcing bars must be mild or medium steel rolled from new billets.

No rerolled material or high carbon steel will be permitted.

All bars must be obtained in the full lengths indicated in bill of material

B.M. Two spikes in oak tree at ditch, W. side of road.- El. 91.25

Plans
of
George Love Culvert
Roscoe Twp.
1916.

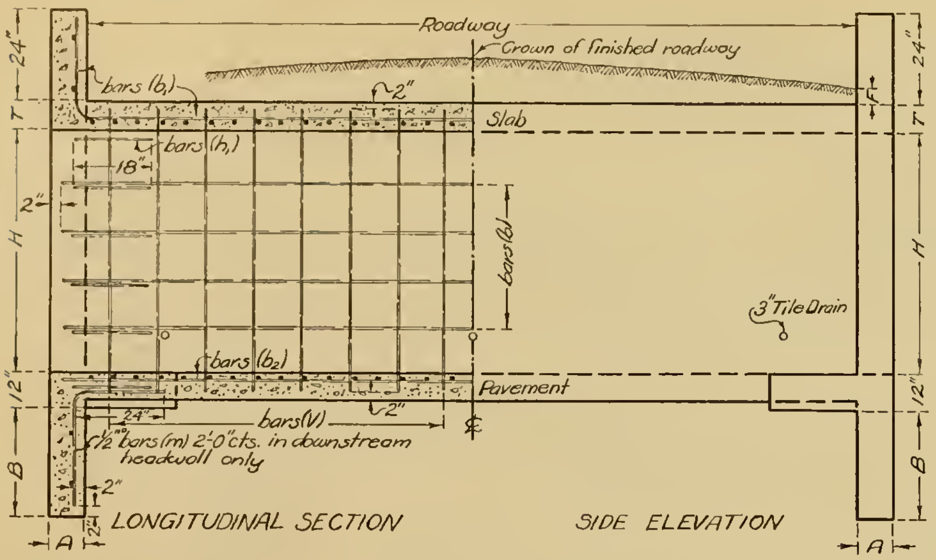
A.R. Carter
Highway Engineer.

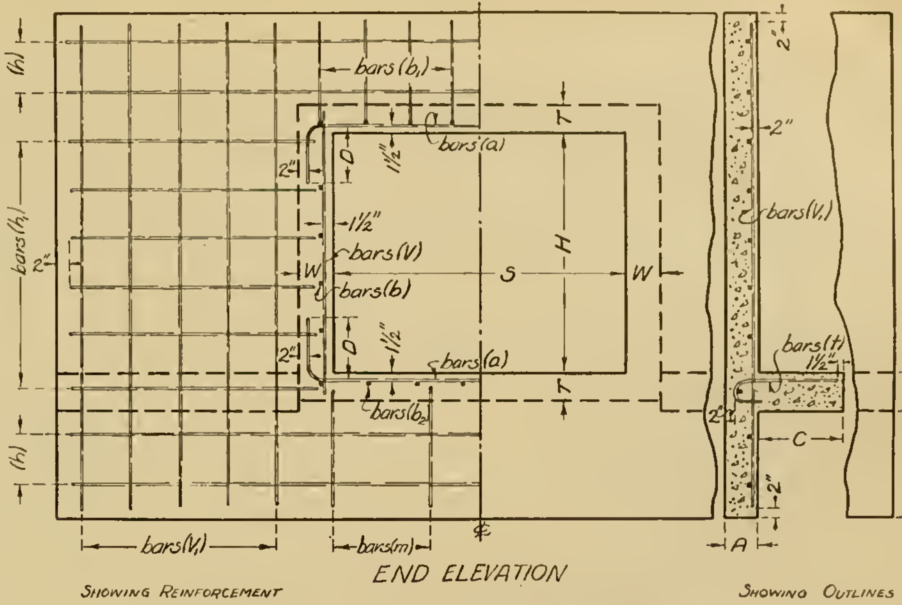
Bill of Material

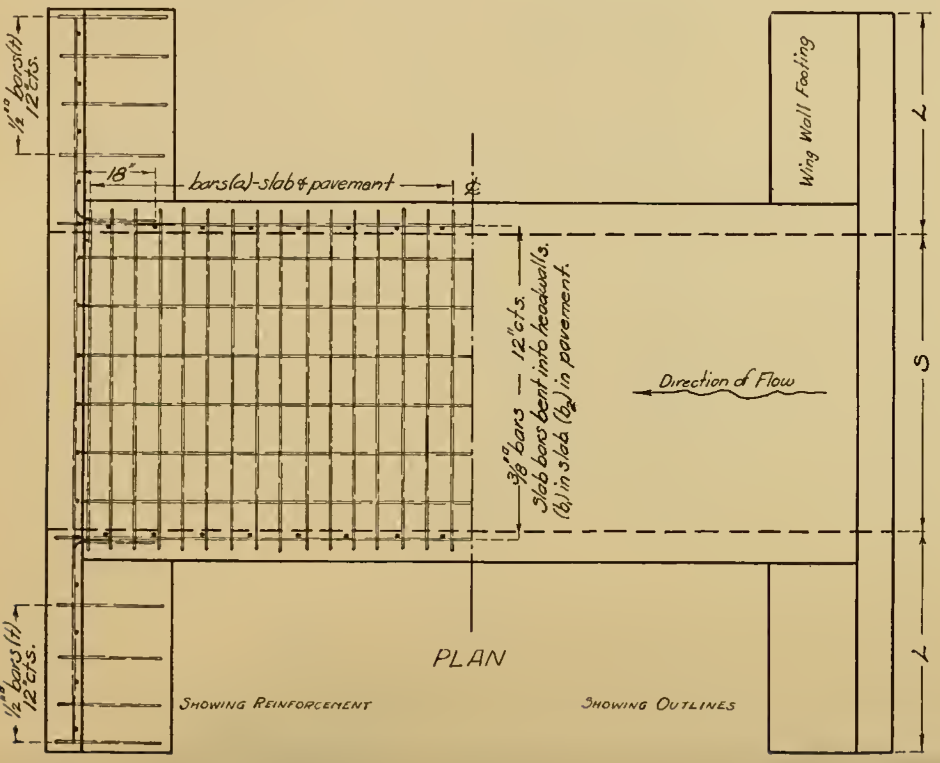
Letter	No.	Size	Length
a	134	½"□	5'-0"
b	8	⅜"□	19'-6"
b1	8	"	15'-9"
h	12	"	17'-0"
h1	7	"	5'-0"
U	5	"	14'-0"
m	4	"	4'-0"
V	58	"	3'-9"
V1	14	"	5'-6"
V2	4	"	6'-6"
Wrough	Iron Pipe	1½"	32'-0"
Steel 1013#			
Concrete 14.5 Cu. yds.			

DESIGN AND CONSTRUCTION OF SPECIAL HIGHWAY DRAINAGE STRUCTURES.

Detail Illustrating a Type of Box Culvert Used to Drop Elevation of Water Flow Line Without Scouring of Soil.







NOTE—Culverts having spans of 4'-0" or less may be constructed without wingwall footings if (b) bars are placed 1½" from outer face of sidewalls and bent 18" into headwalls, 1½" from outer face. (V) bars are also moved to outer face of sidewalls. Distance "B" should be 12" on up-stream and 2'-6" on down-stream end, measured from bottom of pavement with footing omitted.

In culverts of span 4'-0" or under, 2-(h) bars are placed 4" from top of headwall, 2" from either face and (b_1) bars are bent into center of wall.

All steel should be mild or medium first grade stock. Lengths not indicated should be figured with the end clearances shown in the diagram and should be obtained in the full lengths indicated or calculated.

Bevel all exposed edges with ¾" triangular moulding.

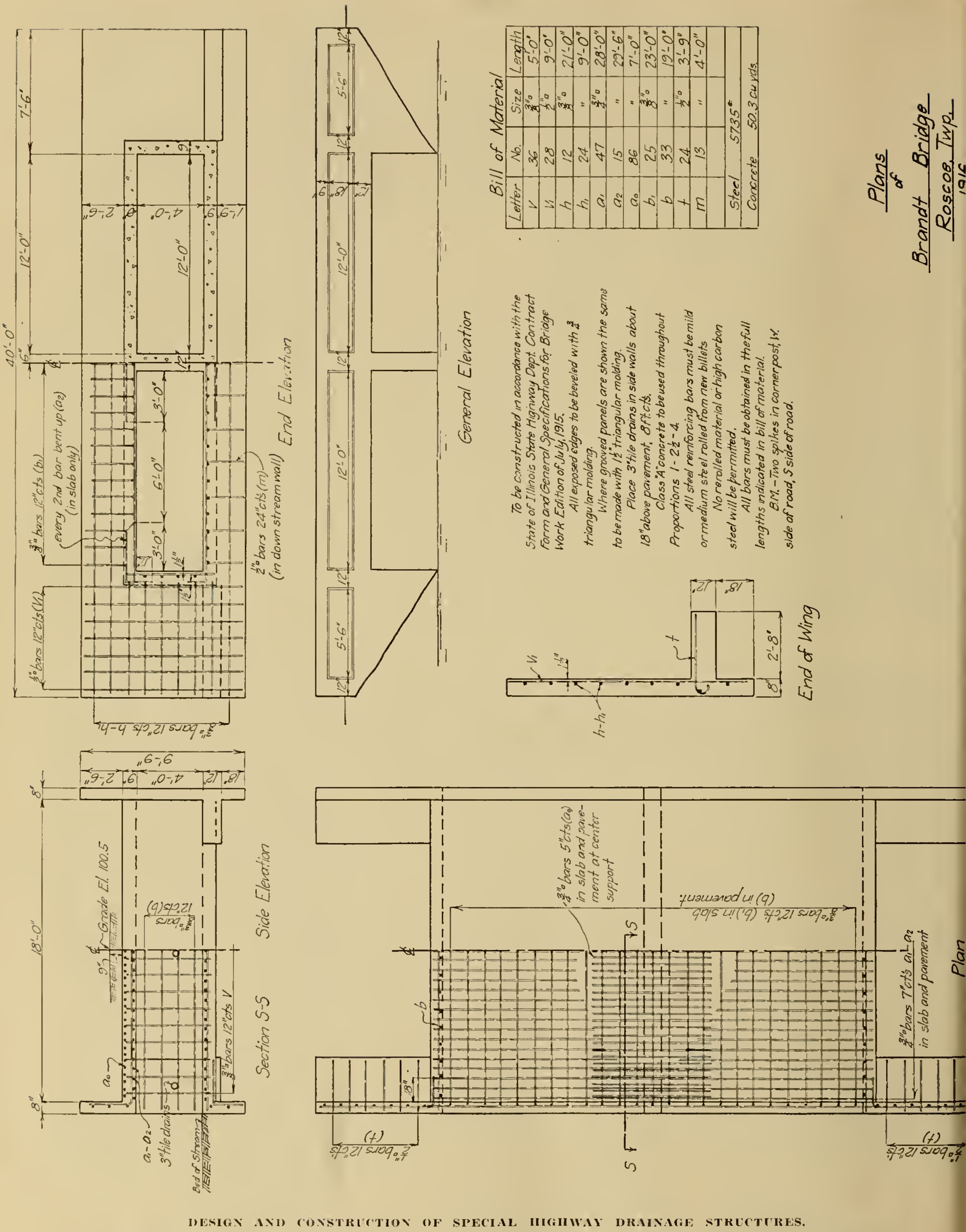
Length "L" as calculated from the equation given below implies a slope of 1½ to 1 for earth fill falling around ends of headwalls.

Dimensions shown are not intended to apply to culverts carrying heavy fills. Culverts of span 4'-0" or under will carry fill of 4'-0"; all others are designed to carry fill of 1'-0" only.

Concrete should be proportioned 1-2½-4 thruout.

Dimensional Data									Reinforcing Bars													
S	H	T	W	A	B	C	D	L	(a)			(b)		(h)		(h_1)		(V)			(V_1)	
									Size	Space	Lgth	Size	Space	Size	Space	Size	Space	Size	Spc.	Lgt.	Size	Spc.
2'	2'	6"	8"	8"	Note	Note	9"	L=1.5(H+T+F)	⅜"	8"	4'-6"	½"	10"	½"	Note	½"	10"	⅜	4'	2'-9"	⅜"	4'
3'	Up to 3'	6"	8"	8"	"	"	9"		⅜"	6"	5'-6"	½"	10"	½"	"	½"	10"	⅜	4'	-	⅜"	4'
4'	" " 4'	6"	8"	8"	"	"	9"		½"	6"	6'-6"	½"	10"	½"	"	½"	10"	⅜	4'	-	⅜"	4'
5'	" " 5'	7"	8"	8"	24"	C=0.4(H+T)	9"		½"	7"	7'-6"	⅜"	12"	⅜"	12"	⅜"	12"	⅜	12"	-	½"	12"
6'	" " 6'	7"	8"	8"	24"		9"		½"	5"	8'-6"	⅜"	12"	⅜"	12"	⅜"	12"	⅜	12"	-	½"	12"
7'	" " 7'	7"	8"	8"	24"		9"		⅝"	6"	9'-6"	⅜"	12"	⅜"	12"	⅜"	12"	⅜	12"	-	½"	12"
8'	" " 7'	8"	8"	8"	24"		9"		⅝"	4¾"	10'-6"	⅜"	12"	⅜"	12"	⅜"	12"	⅜	12"	-	½"	12"
9'	" " 9'	9"	9"	12"	24"		12"		⅝"	5½"	12'-2"	⅜"	12"	⅜"	12"	⅜"	12"	⅜	12"	-	½"	12"
10'	" " 9'	9"	9"	12"	24"		12"		¾"	6½"	13'-2"	⅜"	12"	⅜"	12"	⅜"	12"	⅜	12"	-	½"	12"
11'	" " 9'	9"	9"	12"	24"		12"		¾"	5½"	14'-2"	⅜"	12"	⅜"	12"	⅜"	12"	⅜	12"	-	½"	12"
12'	" " 9'	9"	9"	12"	24"		12"		¾"	5"	15'-2"	⅜"	12"	⅜"	12"	⅜"	12"	⅜	12"	-	½"	12"

DESIGN AND CONSTRUCTION OF SPECIAL HIGHWAY DRAINAGE STRUCTURES.
Plan for Reinforced Concrete Box Culverts of Span 12 Feet or Less and Height 9 Feet or Less.



Bill of Material

Letter	No.	Size	Length
V	36	3/8"ø	5'-0"
V₁	28	1/2"ø	9'-0"
h	12	3/8"ø	21'-0"
h₁	24	"	9'-0"
a₁	47	3/4"ø	28'-0"
a₂	15	"	29'-6"
a₀	86	"	7'-0"
b₁	25	3/8"ø	23'-0"
b	33	"	19'-0"
t	24	1/2"ø	3'-9"
m	13	"	4'-0"
Steel 5735#			
Concrete 50.3 cu yds.			

To be constructed in accordance with the State of Illinois State Highway Dept. Contract Form and General Specifications for Bridge Work Edition of July, 1915.

All exposed edges to be beveled with 3/4 triangular molding.

Where grooved panels are shown the same to be made with 1½" triangular molding.

Place 3"tile drains in side walls about 18"above pavement, 8ft.cts.

Class "A" concrete to be used throughout Proportions 1 - 2½ - 4.

All steel reinforcing bars must be mild or medium steel rolled from new billets.

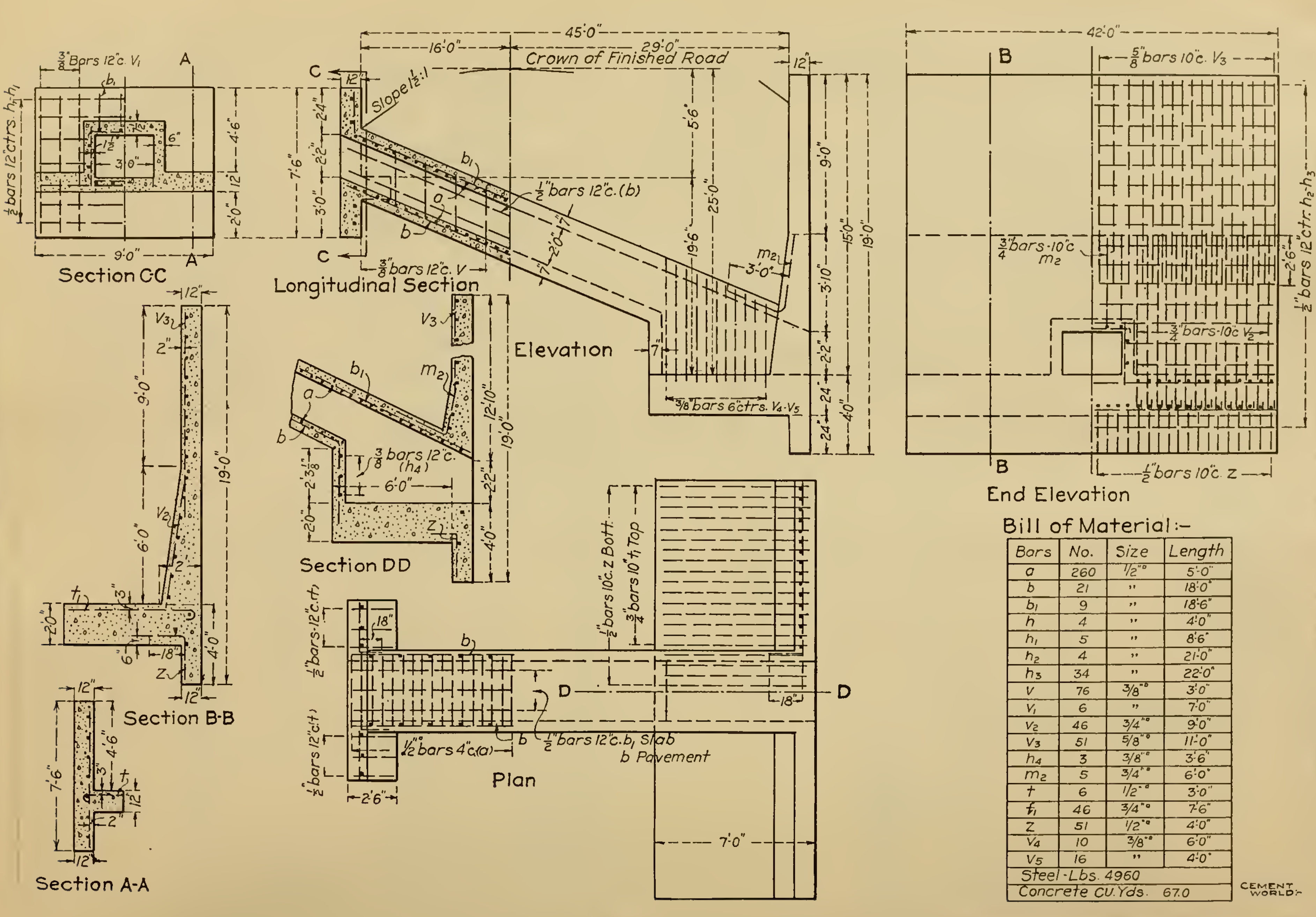
No rerolled material or high carbon steel will be permitted.

All bars must be obtained in the full lengths indicated in bill of material.

B.M.-Two spikes in corner post, W. side of road, S side of road.

DESIGN AND CONSTRUCTION OF SPECIAL HIGHWAY DRAINAGE STRUCTURES.

Double Box Culvert Designed to Reduce the Cost of a Long Span Necessary Because of Limited Vertical Clearance.



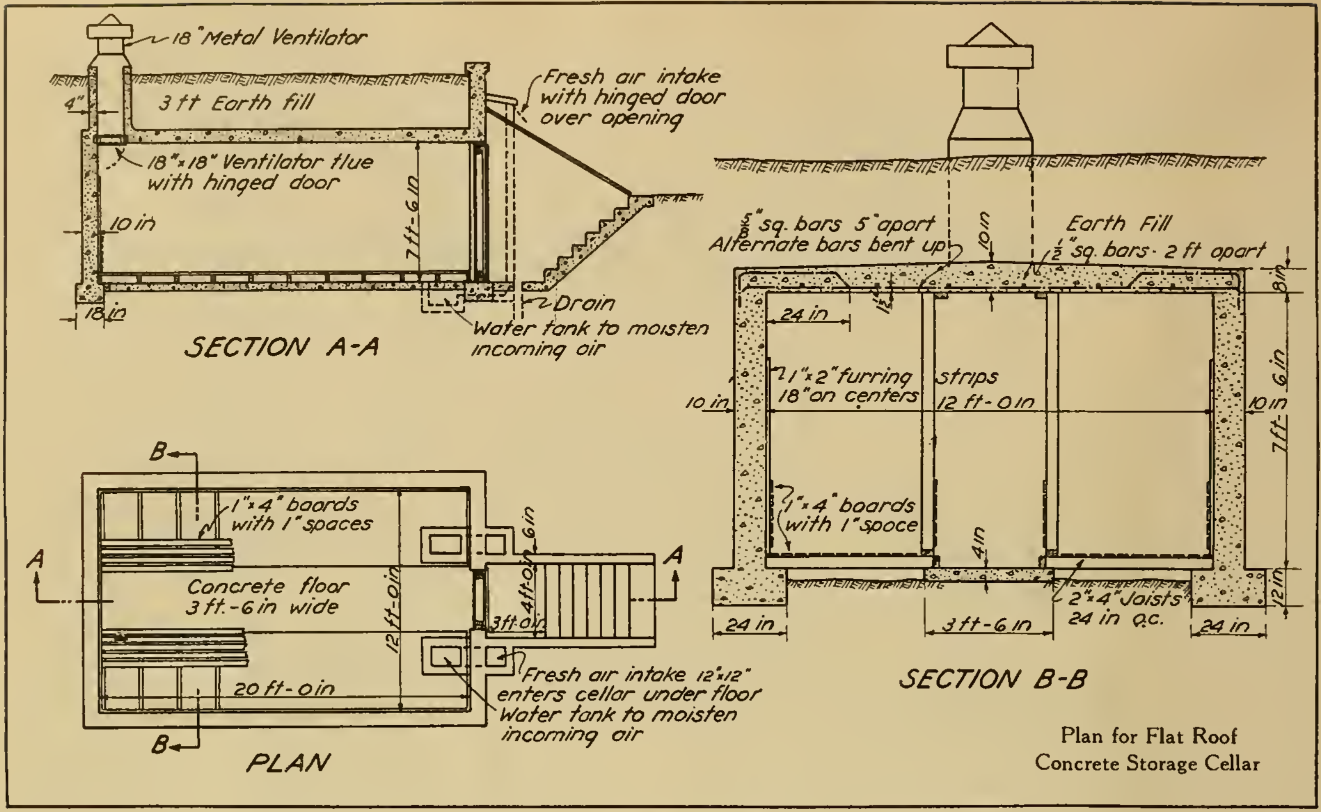
Bill of Material:–

Bars	No.	Size	Length
a	260	1/2"⌀	5'0"
b	21	"	18'0"
b_1	9	"	18'6"
h	4	"	4'0"
h_1	5	"	8'6"
h_2	4	"	21'0"
h_3	34	"	22'0"
V	76	3/8"⌀	3'0"
V_1	6	"	7'0"
V_2	46	3/4"⌀	9'0"
V_3	51	5/8"⌀	11'0"
h_4	3	3/8"⌀	3'6"
m_2	5	3/4"⌀	6'0"
t	6	1/2"⌀	3'0"
t_1	46	3/4"⌀	7'6"
Z	51	1/2"⌀	4'0"
V_4	10	3/8"⌀	6'0"
V_5	16	"	4'0"
Steel-Lbs. 4960			
Concrete Cu. Yds. 67.0			

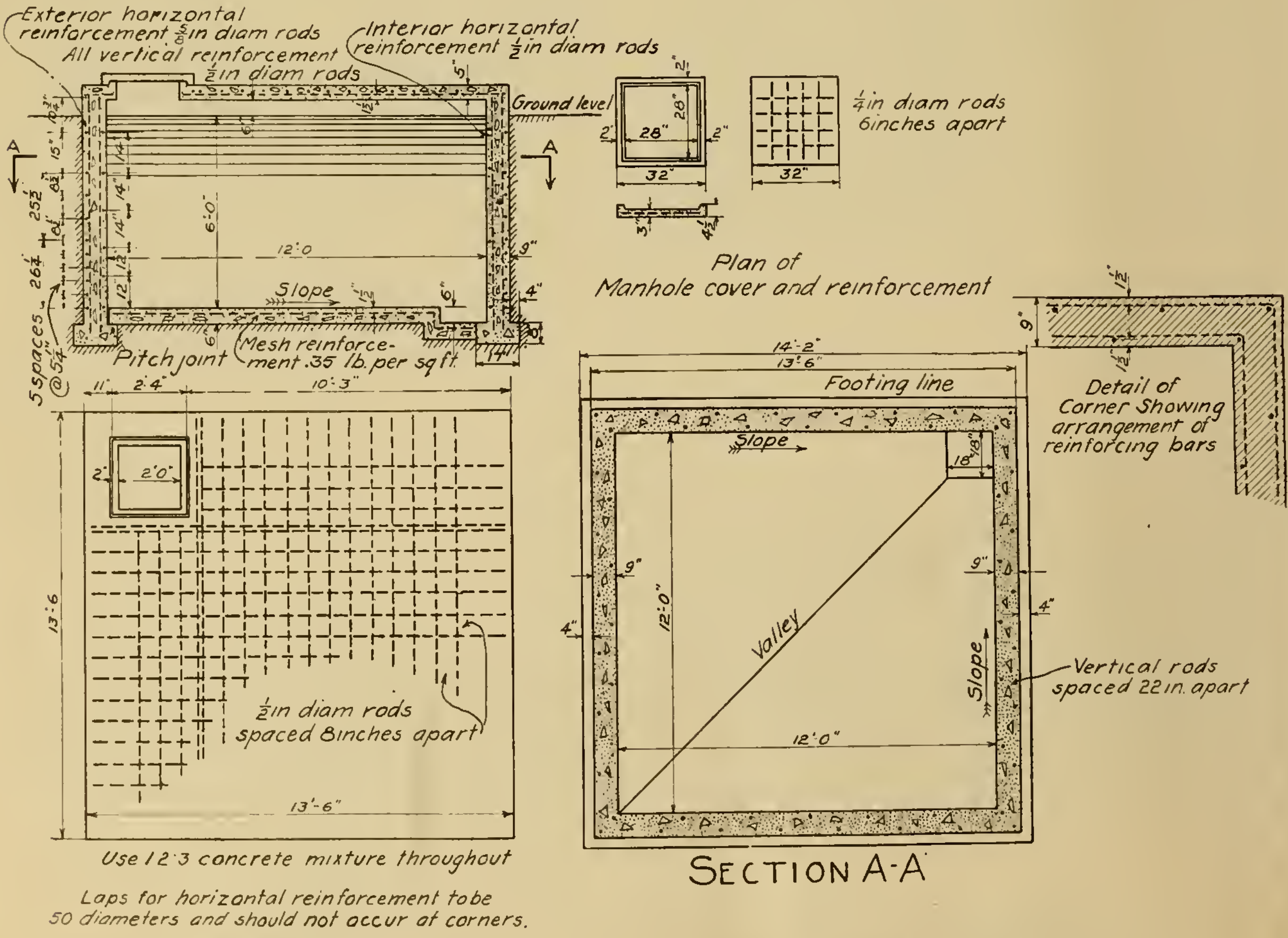
CEMENT WORLD

DESIGN AND CONSTRUCTION OF SPECIAL HIGHWAY DRAINAGE STRUCTURES.

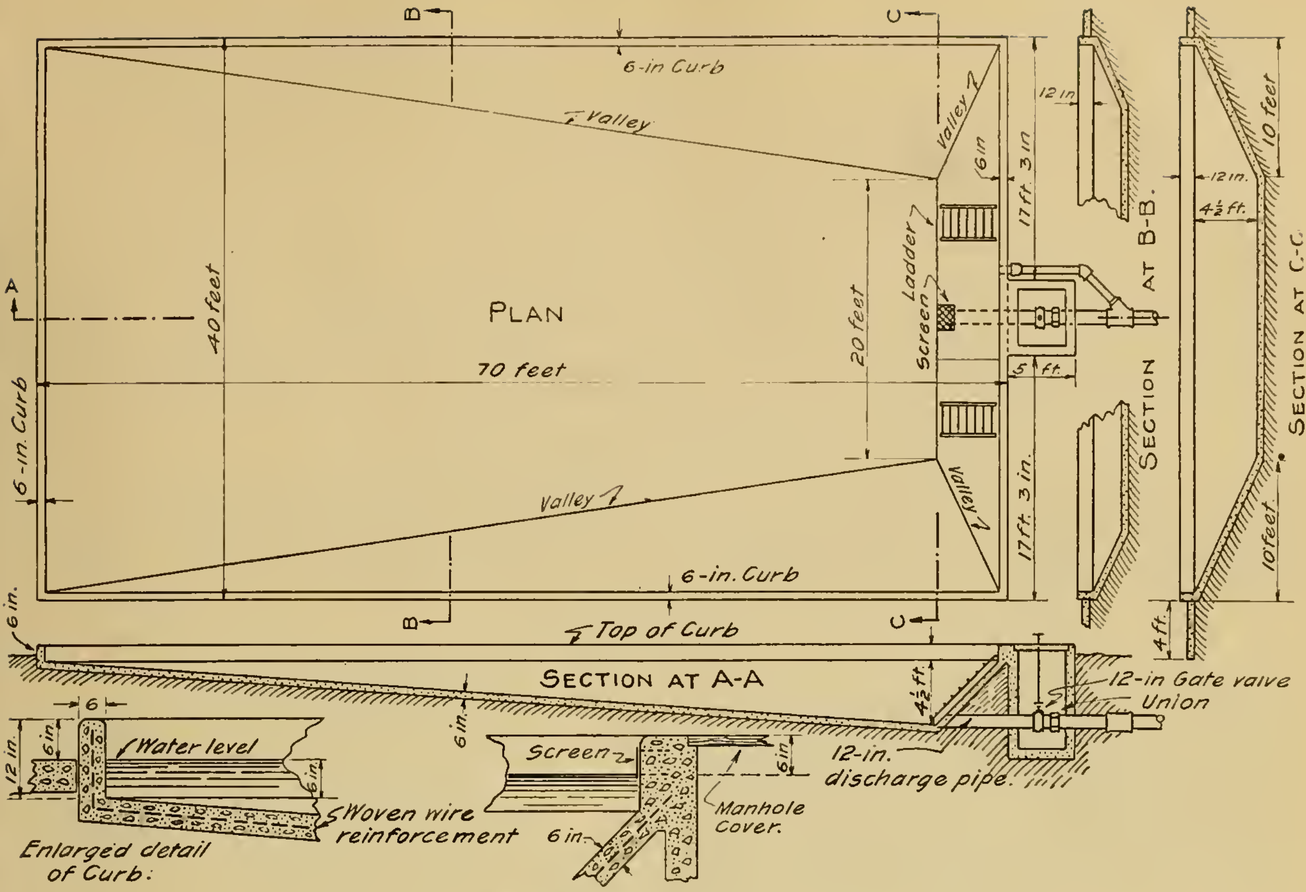
Reinforced Concrete Culvert to Bring Water Down to a Lower Level. Conditions Requiring This Type of Culvert Are Common in McDonough County, Illinois, Where This Design Was Developed in State Aid Highway Drainage Work.



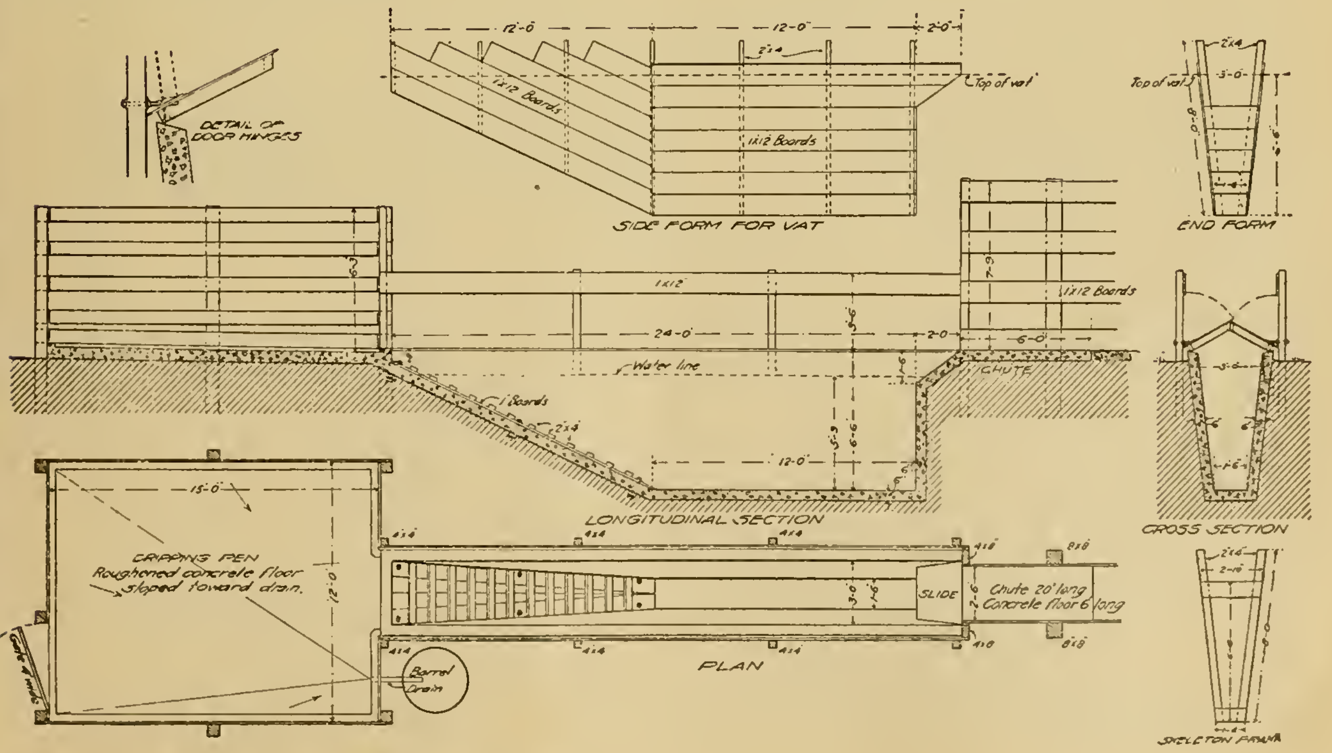
Storage Cellar with a Capacity of 800 Bushels. Greater or Less Capacity Can Be Secured by Adding to or Taking from the Length of the Plan, Each Additional Foot of Length Increasing the Storage Capacity 40 Bushels.



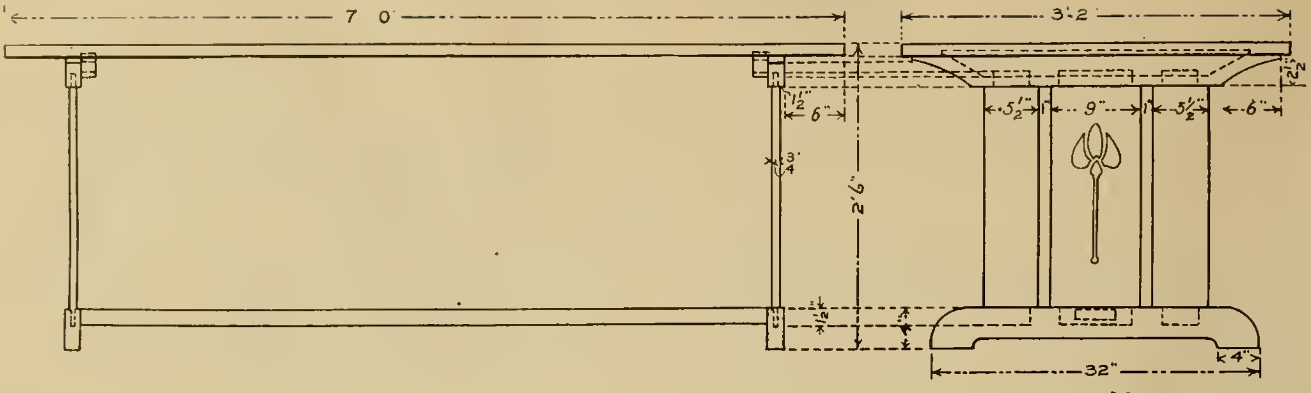
Construction Details of a Reinforced Concrete Tank Designed to Hold 6,000 Gallons of Oil.



Details of Concrete Swimming Pool.



Plans for a Concrete Dipping Vat for Cattle, as Recommended by the U. S. Department of Agriculture.



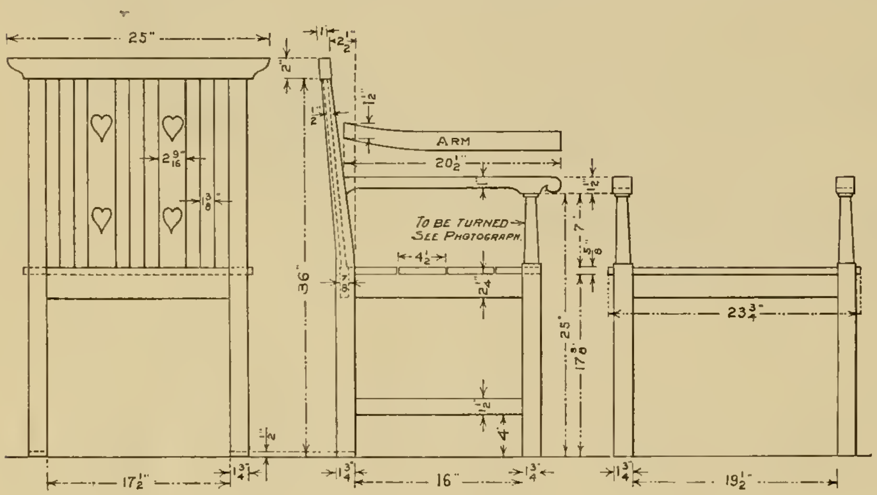
SIDE VIEW

END VIEW.

ARCHITECT'S OR BUILDER'S TABLE.

STOCK BILL FOR OFFICE TABLE

Top, 1 piece, 1⅛ by 38½ by 85 inches, S-2-S.
Top end rails, 2 pieces, 1½ by 3¼ by 38 inches, S-2-S.
Bottom end rails, 2 pieces, 1½ by 4¼ by 32½ inches, S-2-S.
Cleats, 2 pieces, 1½ by 2½ by 32 inches, S-2-S.
Stretcher, 1 piece, 1½ by 7¼ by 70 inches, S-2-S.
Slats, 2 pieces, ¾ by 9¼ by 26 inches, S-2-S.
Slats, 4 pieces, ¾ by 5¾ by 26 inches, S-2-S.



BACK. SIDE. FRONT

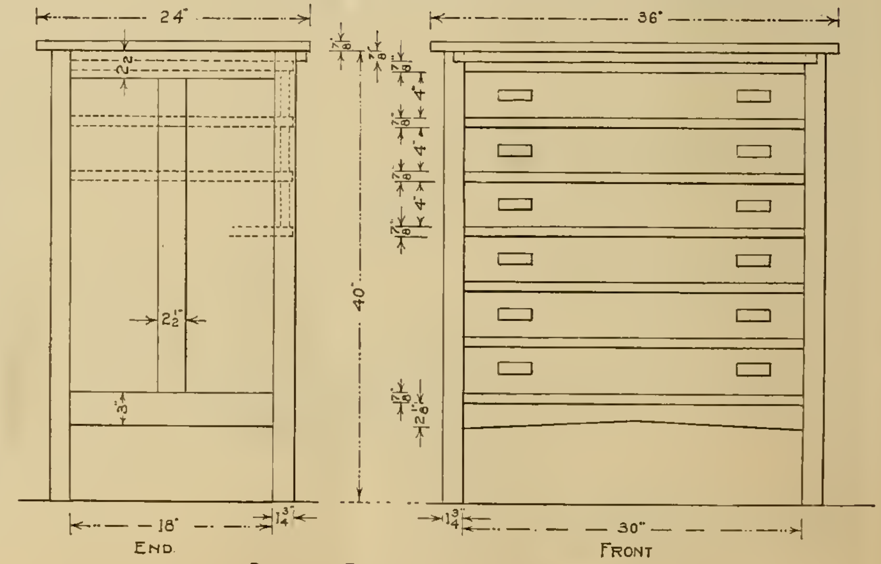
ARM CHAIR.

STOCK BILL FOR CHAIR

Front posts, 2 pieces, 1¾ by 1¾ by 26 inches, S-4-S.
Back posts, 1 piece, 1¾ by 5½ by 37 inches, S-2-S.
Seat rails, 2 pieces, ⅞ by 2½ by 18 inches, S-2-S.
Seat rail, 1 piece, ⅞ by 2½ by 21½ inches, S-2-S.
Seat rail, 1 piece, ⅞ by 3⅛ by 19½ inches, S-2-S.
Lower rails, 2 pieces, ⅝ by 1¾ by 18 inches, S-2-S.
Seat, 4 pieces, ⅝ by 4¾ by 24 inches, S-2-S.
Arms, 2 pieces, 1½ by 3 by 21 inches, S-2-S.
Back, 1 piece, 1 by 2¼ by 25½ inches, S-2-S.
Back slats, 2 pieces, ½ by 2¾ by 19 inches, S-2-S.
Back slats, 3 pieces, ½ by 1⅝ by 19 inches, S-2-S.

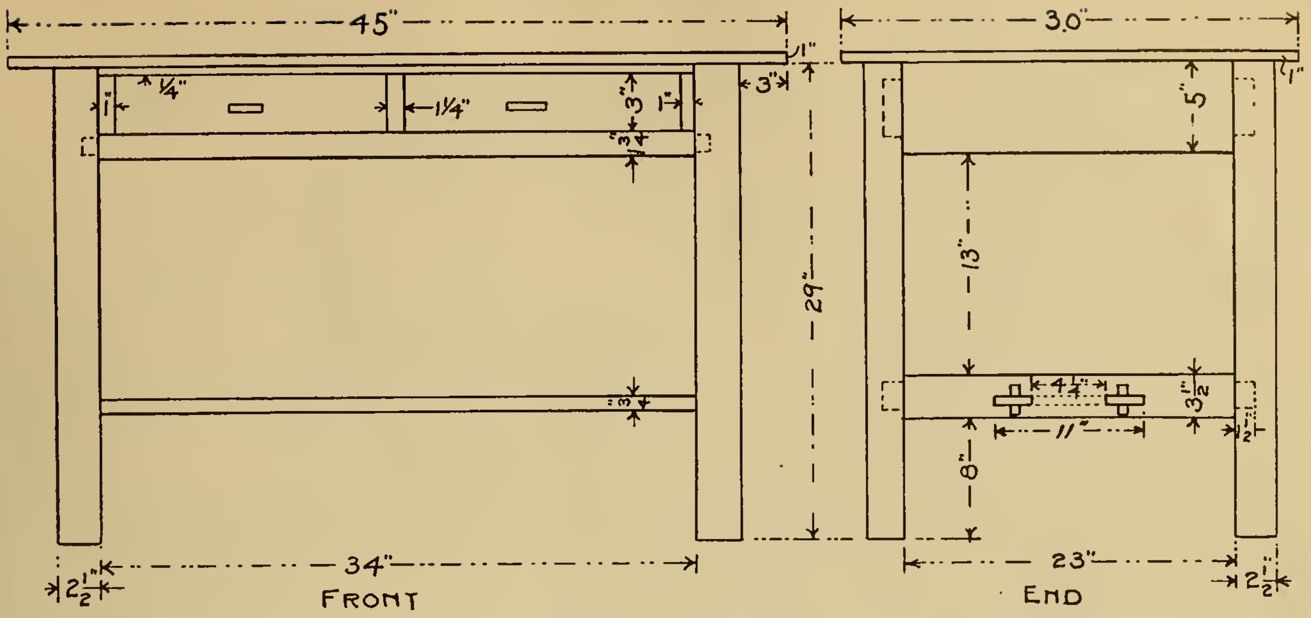
STOCK BILL FOR DRAFTING TABLE

Top, 1 piece, ⅞ by 24½ by 36½ inches, S-2-S.
Posts, 4 pieces, 1¾ by 1¾ by 40½ inches, S-4-S.
Side paneling—
Rails, 2 pieces, ¾ by 3¼ by 20 inches, S-2-S.
Rails, 2 piece, ¾ by 2¾ by 20 inches, S-2-S.
Munting, 2 pieces, ¾ by 3¾ by 26½ inches, S-2-S.
Panels, 4 pieces, 5/16 by 8½ by 25½ inches, S-2-S.
Back paneling—
Rail, 1 piece, ¾ by 3¼ by 32 inches, S-2-S.
Rail, 1 piece, ¾ by 2¾ by 32 inches, S-2-S.
Munting, 2 pieces, ¾ by 2¾ by 26½ inches, S-2-S.
Panels, 3 pieces, 5/16 by 9 by 25½ inches, S-2-S.
Facing, 1 piece, ¾ by 2⅜ by 32½ inches, S-2-S.
Slide, 2 pieces, ¾ by 1¾ by 22 inches, S-2-S.
Slide, 2 pieces, ¾ by 1¾ by 33 inches, S-2-S.
Slide, 1 piece, ½ by 16 by 28 inches, S-2-S.
Drawer supports, 14 pieces, ⅞ by 2½ by 20 inches, S-2-S.
Drawer supports, 14 pieces, ⅞ by 2½ by 32½ inches, S-2-S.
Drawer guides, 14 pieces, ¾ by ¾ by 20 inches, S-2-S.
Drawer fronts, 6 pieces, ¾ by 4¼ by 30½ inches, S-2-S.
Drawer ends, 12 pieces, ½ by 4¼ by 20 inches, S-2-S.
Drawer backs, 6 pieces, ⅜ by 4 by 30 inches, S-2-S.
Drawer bottoms, 6 pieces, ⅜ by 20 by 30 inches, S-2-S.



END FRONT

DRAFTING TABLE WITH DRAWERS

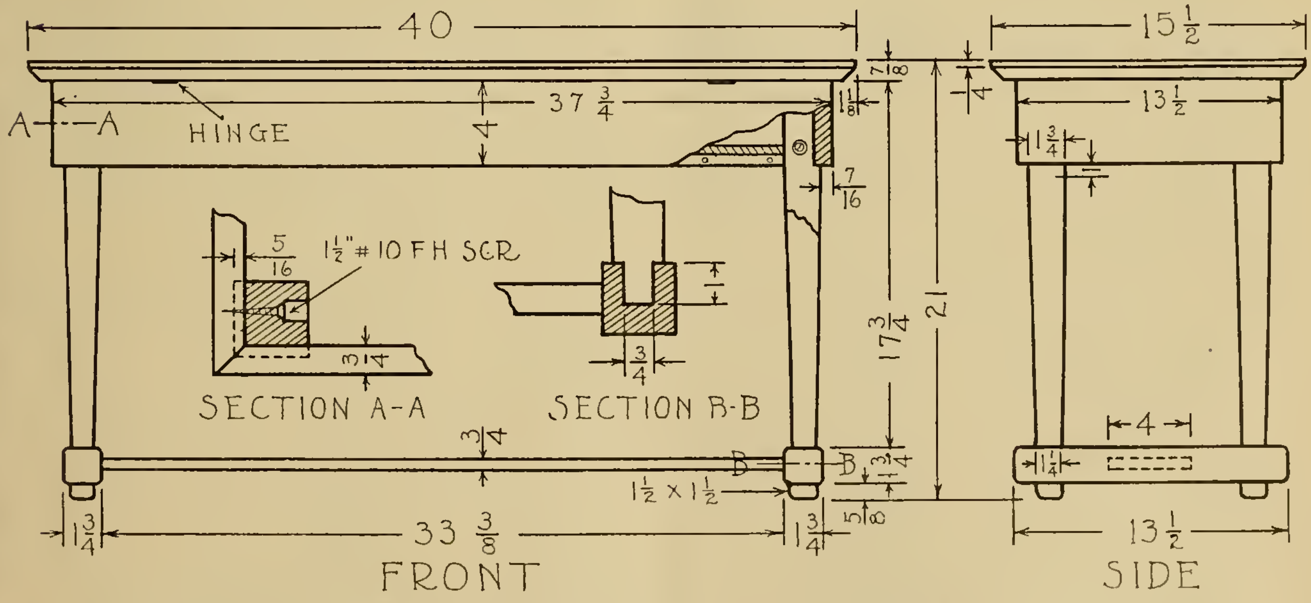


LIBRARY OR STUDY TABLE.

STOCK BILL FOR LIBRARY TABLE

Top, 1 piece, 1 by 30½ by 45½ inches, S-2-S.
Legs, 4 pieces 2½ by 2½ by 29½ inches, S-4-S.
Back rail, 1 piece, ¾ by 5¼ by 37 inches, S-2-S.
End rails, 2 pieces, ¾ by 5¼ by 26 inches, S-2-S.
Front rail, 1 piece, ¾ by 2 by 37 inches, S-2-S.
Shelf, 1 piece, ¾ by 11¼ by 40 inches, S-2-S.
Drawer facings, 2 pieces, ¾ by 3¼ by 16 inches, S-2-S.
Drawer sides, 4 pieces, ⅜ by 3¼ by 26 inches, S-2-S.
Drawer backs, 4 pieces, ⅜ by 3 by 16 inches, S-2-S.
Drawer bottoms, 2 pieces, ⅜ by 26 by 16 inches, S-2-S.
Drawer slides, 3 pieces, ¾ by 2¾ by 26 inches, S-2-S.
Drawer guides, 3 pieces, ¾ by 1½ by 26 inches, S-2-S.
Tie, over drawers, 1 piece, ½ by 2¾ by 36 inches, S-2-S.

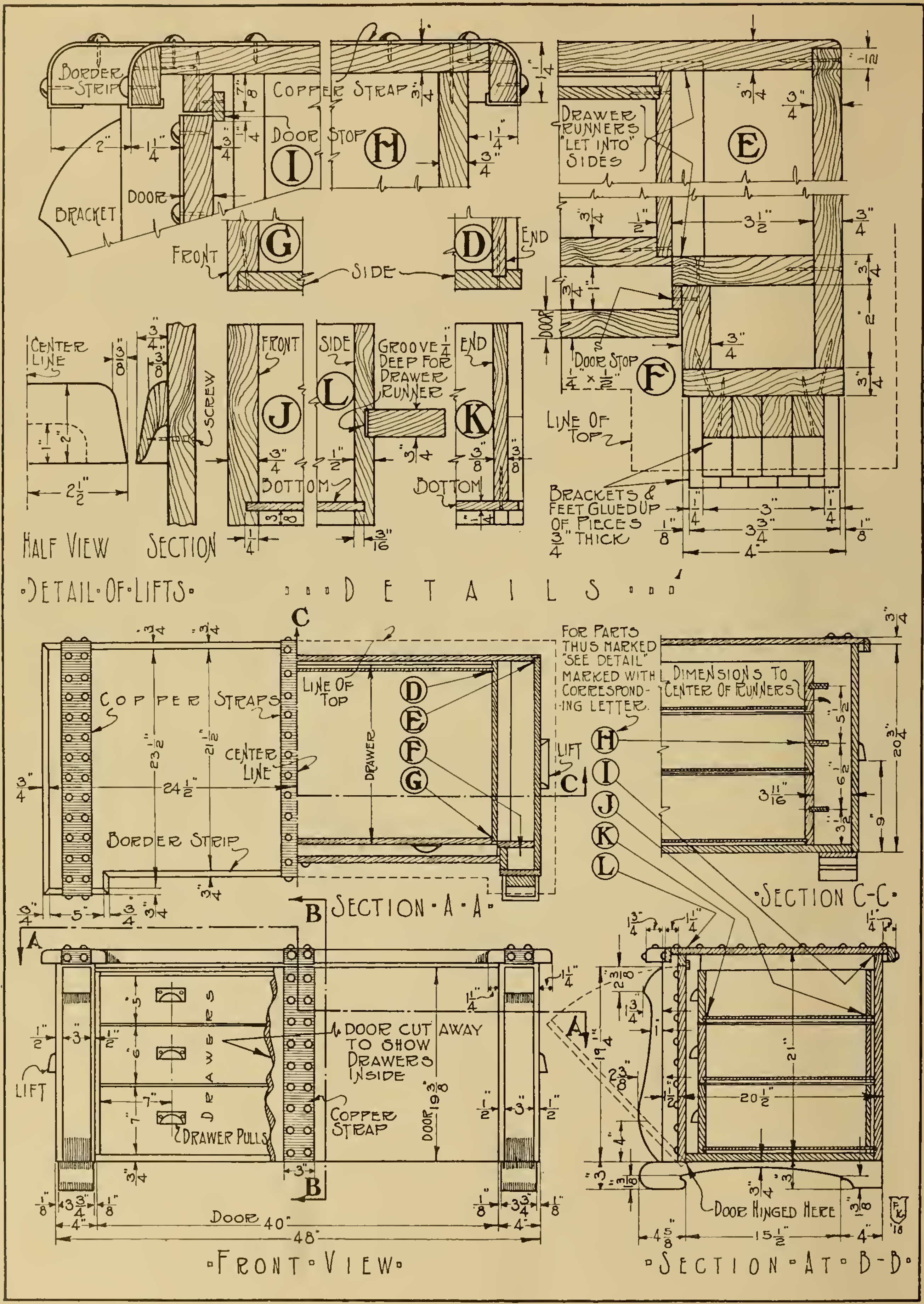
The remaining pieces, keys, and short facings about the drawers may be got from scrap stock.



Construction Details of a Strong and Serviceable Piano Bench.

STOCK BILL FOR PIANO BENCH, GIVING FINISHED SIZES

Cover, 1 piece, ⅞ by 15½ by 40.
Posts, 4 pieces, 1¾ by 1¾ by 18¾ (one 1-inch tenon).
Frame, 2 pieces, ¾ by 4 by 37¾.
2 pieces, ¾ by 4 by 13½.
Lower rail. 2 pieces, 1¾ by 1¾ by 13½.
Stretcher, 1 piece, ¾ by 4 by 35⅛ (two ⅞-inch tenons)
Blocks, 4 pieces, ⅝ by 1½ by 1½.
Bottom, 1 piece, 5/16 by 12 by 36¼ (wallboard).
2 pieces, ⅜ by ⅜ by 33⅜.
2 pieces, ⅜ by ⅜ by 9⅛.
Hardware, 1 pair ¾ by 2½ nickel plated butts.
16 1½-inch No. 10 F. H. screws.



Working Details of a Cedar Chest of Unique and Attractive Design.

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For Every Type of Building

A Collection of Authoritative Plates for Contractors, Builders, Lumber Dealers, Millmen, Draftsmen, and Architects

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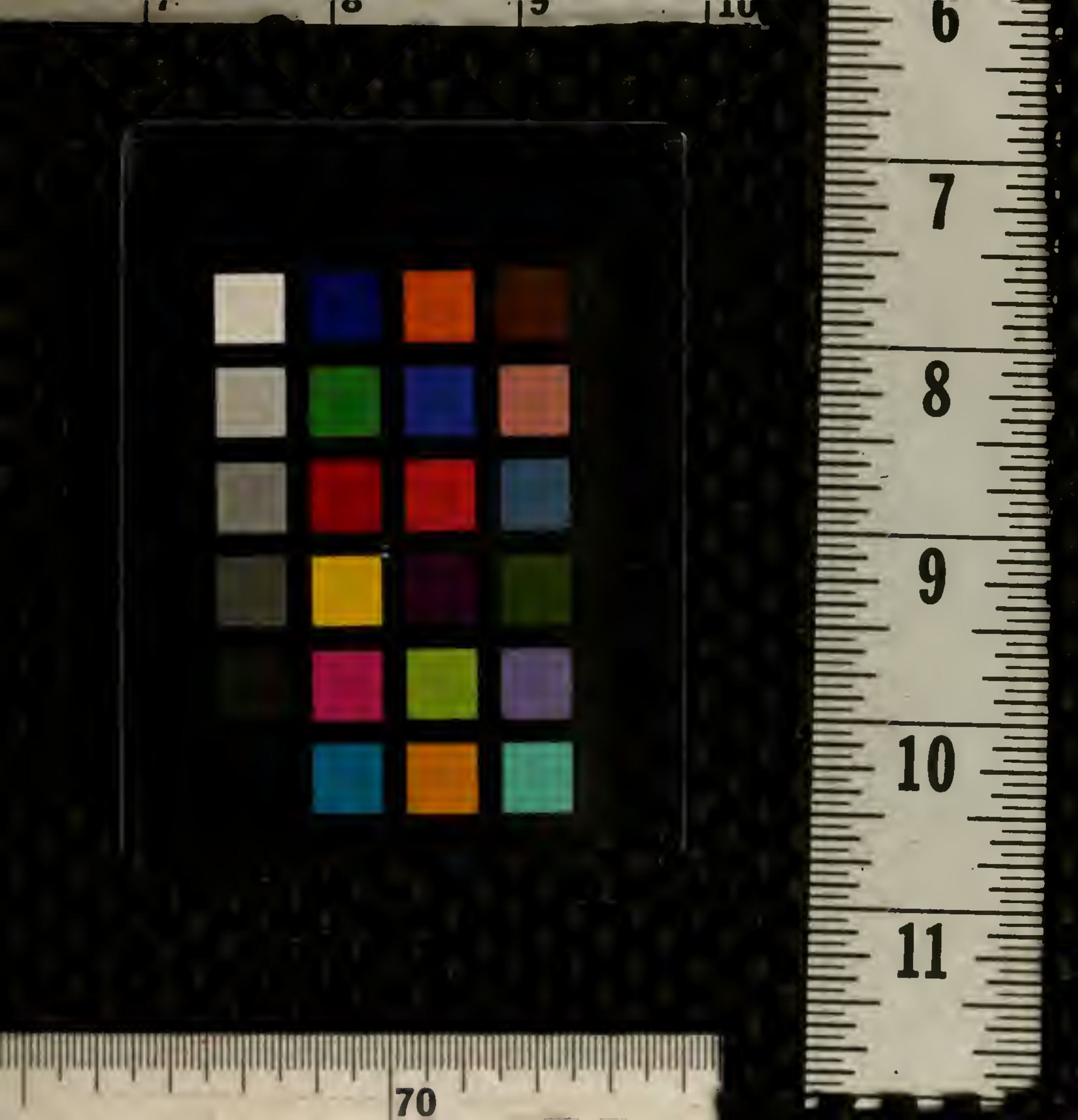
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